

Attachment A

Program Name:

COMPUTER INFORMATION SYSTEMS

A. PAST: Review of Program Performance, Objectives, and Outcomes for the Three Previous Academic Years: 2006-07, 2007-08, 2008-09

1. List the objectives developed for this program during the last comprehensive program review.
 - Purchase new equipment and upgrade facility to be able to add sections to the schedule for the computer repair course and revise that course to encompass certification training. Partially accomplished. CTE funds were used to make the upgrades and revise courses. Sections were not increased because the Room 1705 was not expanded and because of restrictions in hiring additional faculty.
 - Secure funds to designate and equip a network lab in order to develop Network+ certification program. Accomplished. CTE funds were used to develop the curriculum and the classroom.
 - Remodel Room 901, the Business Computer Lab to professionalize the work space. Accomplished. Desks for lab technicians that include a work table for repairing computers were purchased; however, Business Computer Lab was relocated to Room 2610 to accommodate a new Cisco classroom in 901.
 - Secure funds to send one or more CIS instructors to training for Network+ Certification. Accomplished. Tom Paine completed the Network+ Certification program. As we move to the new Cisco curriculum, however, additional training will be critical.
 - Designate and equip a multimedia classroom. Accomplished. Room 803 was equipped with multimedia computers in 2006. However, those computers now need to be replaced because they are five years old.
 - Work with Division of Humanities to develop a Multimedia Certificate. Accomplished. Program was developed, submitted to the Chancellor's Office and received approval. A scheduling plan is in place.
 - Work with Science/Math/Engineering Division to coordinate computer curriculum 2005-2008. Accomplished. CIS faculty provided input regarding Computer Science program.
 - Hire additional adjunct instructors to cover increasing workload brought about by expanding repair class sections and offering network certification course. Accomplished. Adjunct hired to teach introduction course.
 - Evaluate the need to hire an additional full-time tenure track position to meet the increasing student enrollment demands. Accomplished. The Instructional Media Designer position was revised to include a 40% teaching assignment in the area of CIS. This assignment was made as a replacement for a vacant full time office technologies instructor position. Currently, however, there is a need to hire a new full-time instructor and additional adjunct instructors to implement the Cisco program.

- Work with Extended Campus Dean to secure funds to replace outdated equipment and to hire a technician to maintain equipment at extended campus sites. Partially Accomplished. Equipment was upgraded at El Centro and Calexico campuses through grant funds. Hiring a technician to maintain the equipment will be more difficult to accomplish because of the budget constraints.
- Evaluate the community need for GIS and Computer Forensics curriculum. Accomplished. Administration and program staff concluded the multimedia program and the CISCO program should be the priority.
- CIS instructor will begin the process to collect the statistical data necessary for implementing prerequisites for programming and computer repair classes. Accomplished. Prerequisites were evaluated and implemented.

2. **Present program performance data in tabular form for the previous three years that demonstrates the program's performance toward meeting the previous objectives. Include the following standard program performance metrics as well additional program specific metrics, if any.**
 - a. **For teaching programs this data should include at least the following: Enrollment at census, number of sections, fill rate, retention rate, success rate, and grade distribution for each course in the program, during each semester and session of the previous three academic years. In addition, the Full Time Equivalent Faculty (FTEF) and Full Time Equivalent Students (FTES) and the ratio of FTES per FTEF should be presented for the program for each semester and session.**

See Section D Program Data below

3. **Present student learning or service area outcomes data that demonstrate the program's continuous educational and/or service quality improvement. Include the following standard information and metrics as well as additional program specific metrics, if any. List the program level outcomes, goals or objectives and show how these support the Institutional Student Learning Outcomes. Identify the method(s) of assessment used for each of the program level outcomes. Provide a summary of the outcome data for the program, including course and program level data as appropriate.**

SLOs for all courses in the CIS program have been identified and an assessment has been completed on at least one outcome for each course except for CIS 130 and CIS 131 PowerPoint, which should be completed in academic year 2011-12. The summary below indicates the number of SLOs identified and the semester(s) for which data was assessed. Continuous assessment is planned on an ongoing semester-by-semester basis for quality improvement.

COURSE	TITLE	UNITS	SLOs Identified	Assessed for
CIS050	Learning Online, Orientation	1	1	F 09
CIS100	Computer Literacy	1	1	F 09 F 10
CIS101	Intro to Info Systems	3	3	F 08 F 09 S 09
CIS102	Computer Appl Lab	1	2	F 09 F 10
CIS104	Intro to Telecommunications	3	3	S 10
CIS106	PC Maintenance, Repair and Upgrade	3	3	F 09
CIS107	Computer Networking	3	3	F 09
CIS108	Computer Accounting	3	3	Sp 10
CIS120	Microsoft Word I	1	1	F 10
CIS121	Microsoft Word II	1	1	F 10
CIS124	EXCEL I	1	1	F 10
CIS125	EXCEL II	1	1	F 10
CIS130	Power Point I	1	Pending	Pending
CIS131	Power Point II	1	Pending	Pending
CIS137	Dreamweaver	3	3	F 09
CIS149	Photoshop	3	3	F 09
CIS155	Flash	3	3	Sp 10
CIS202	Prog in Visual Basic	3	3	F 09
CIS210	Programming in C++	3	3	F 08 F 09 F 10
CIS212	XHTML, CSS, and JavaScript	3	3	Sp 10
CIS214	PHP and MySQL	3	3	Sp 10

Program level SLOs and strategies to assess have also been developed as indicated below:

CIS MAJOR AND CERTIFICATE PROGRAM

Program-level learning outcomes and assessment strategies:

Beginning Level: CIS 101

Outcome: Analyze web information sources for relevance and accuracy; synthesize, evaluate and communicate the results, demonstrating writing competencies at the college level; describe the general characteristics of a computer system and identify types of computer hardware and software and explain their functions; demonstrate the use of a word processor, spreadsheet, and database application program by completing projects that require students to extend course content to real-world situations and manage and organize files and use data storage devices.

Way(s) to assess: Writing assignments, exams, skill demonstration

Intermediate Level: CIS 104, CIS 106, CIS 107

Outcome: Analyze troubleshooting scenario, work with customers, and determine and implement solutions technical problems.

Way(s) to assess: Simulations, presentations, exams, skill demonstration

Advanced Level: CIS 202, CIS 210, MATH 130

Outcome: Analyze requirements, design solutions, and implement solutions in a programming language.

Way(s) to assess: Programming projects, presentations, exams, skill demonstration

Strategy: Each class will incorporate a project that requires students to extend course content to a real-world situation. Students will be required to research the selected problem and potential solutions adequately to formulate recommendations. Students will be required to document their research and their recommendation.

MULTIMEDIA AND WEB DEVELOPMENT MAJOR AND CERTIFICATE PROGRAM

Program-level learning outcomes and assessment strategies:

Beginning Level: Art 112, 160

Outcome: Communicate and present ideas visually and apply principles of art emphasizing three-dimensional design

Way(s) to assess: Skill demonstration, thumbnail sketches, comprehensive layouts, and typography

Intermediate Level: CIS 137, 149, 155

Outcome: Demonstrate visual communication skills through critiques, written explanations; write effectively as to plan, process and outcome of projects; interact with clients using appropriate design/graphics language illustrate ideas; design page and web layouts; storyboard animation and video projects; create with appropriate software a product that is technically and visually sound; expand expertise as technological advancements demand

Way(s) to assess: Projects, critiques, reports, skill demonstration,

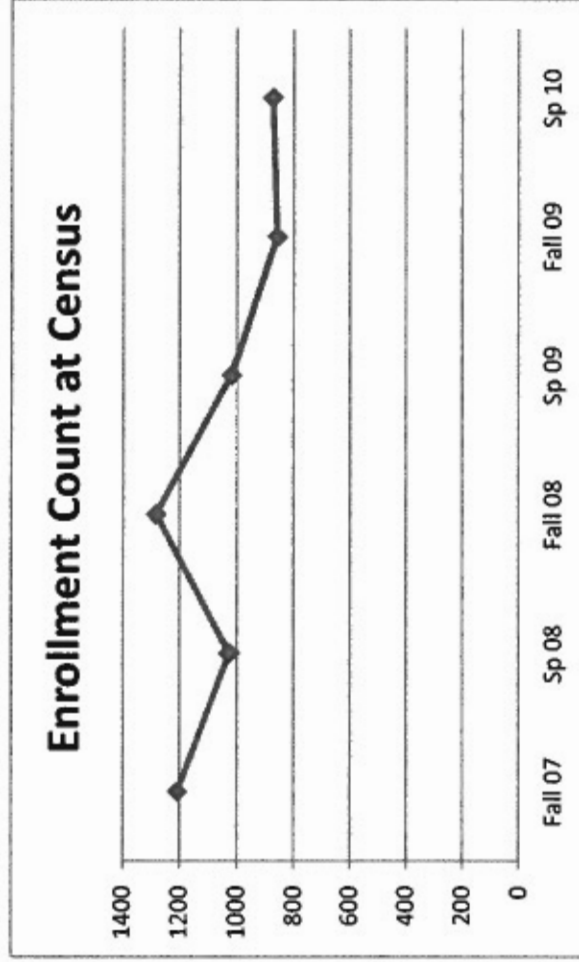
Advanced Level: CIS 212, 214; WE 201, 220

Outcome: Create projects for non-profit organizations, produce original projects that respect intellectual property of others, create an employment portfolio, demonstrate work skills, demonstrate professional demeanor

Way(s) to assess: Projects, employment portfolio, skill demonstration, internship

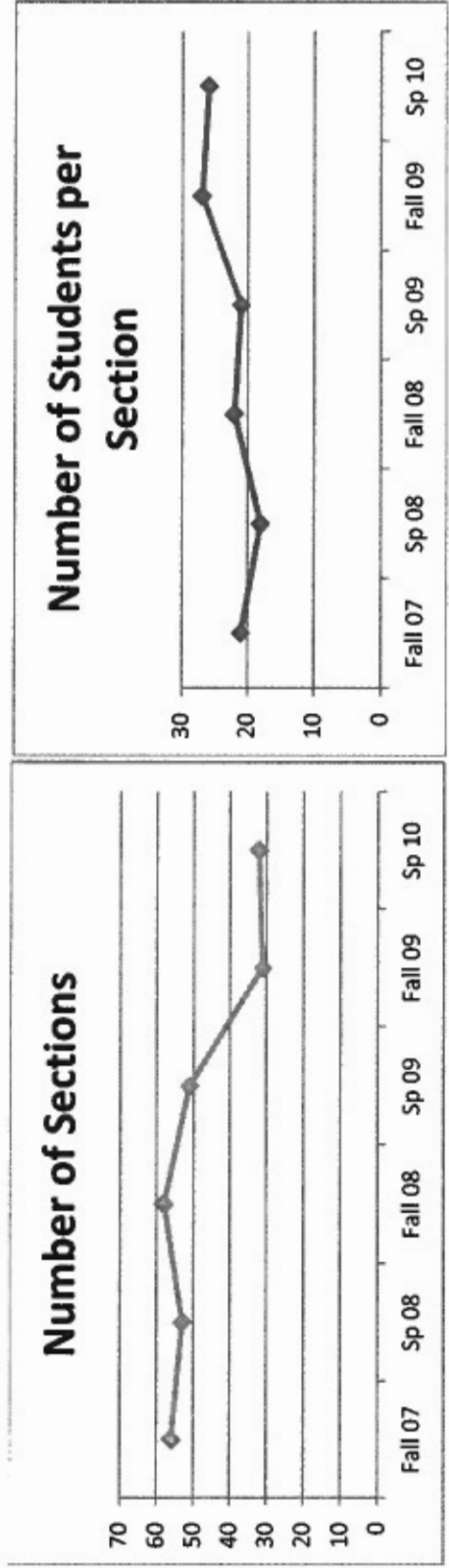
4. Analyze the data presented visually (graphs, diagrams, etc.) and verbally (text) as appropriate, present any trends, anomalies, and conclusions. Explain the program's success or failure in meeting the objectives presented above in item one. Explain the ways that the program utilized the student learning or service area outcome data presented in item three to improve the program (changes to curriculum, instructional methodology, support services, etc.)

Enrollment



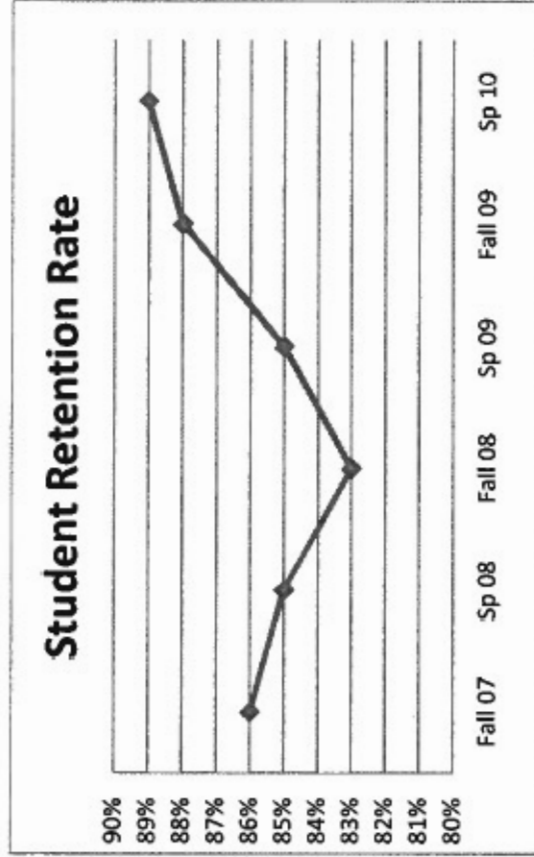
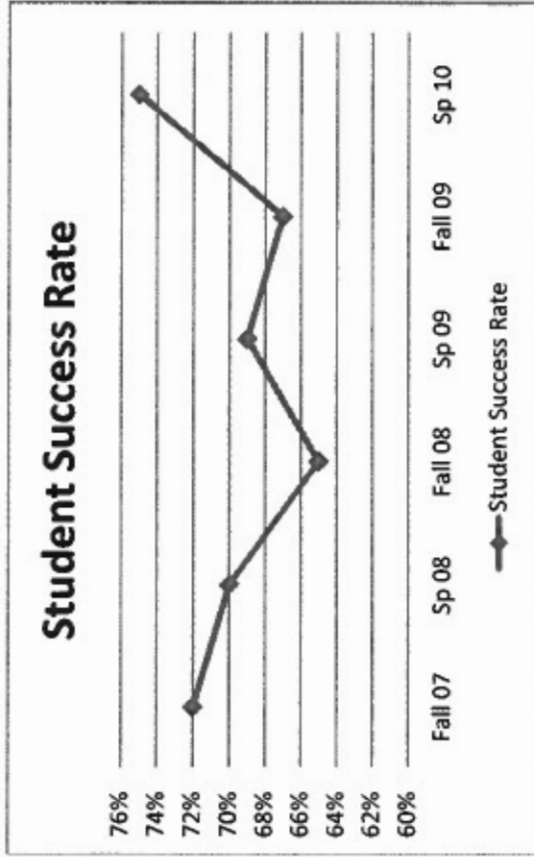
The enrollment information in the table above indicates the enrollment has declined from 1,207 in fall 07 to 859 in fall 2009. Budget reductions have been the cause – departments were required to reduce sections by 10% overall during this time; in addition, CIS courses that were taught at El Centro Extended Campus were reduced significantly when it was closed. The enrollment decline leveled off in fall 2009 and increased slightly in spring 2010.

Number of Sections/Number of Students per Section



Although the enrollment count and the number of sections declined from fall 2007 to fall 2009, the average number of students per section increased during the same time period, from 21 to 26. Except for advanced courses, such as programming, CIS courses fill to maximum quota. Maximum quota is 32 for most CIS courses, since they are taught in computer classrooms with a limited number of workstations.

Student Success Rate/Student Retention Rate



The student retention rate in Computer Information Systems courses averages at 86 percent. The average success rate in Computer Information Systems courses averages at 70 percent. A number of factors need to be considered for the retention and success rates. For example, transfer students generally are required to take CIS 101. The required nature of this course can be attributed to the higher retention rate in this course. However, the lower success rate is also partially accounted for by the same reason. Since students are required to take this course, they are not always very strongly motivated to do well in the course. Furthermore, many students take CIS 101 in their first year of enrollment at IVC. Generally students in their first year of college often do not do as well as more experienced students, and further they are not as academically skilled at the self-assessment needed to determine their actual standing in a course and thus might erroneously elect to stay in a course they are in danger of failing in lieu of dropping. Finally, the course is often taken by students who are still taking basic skill level courses in English. Since the content of the CIS 101 course is at the beginning college reading and writing skill level, these basic skill students often struggle with the course reading and assignments. On the other hand, we see that success and retention rates for students who take CIS courses that are not mandated by all majors have acceptable success rates.

FTEs per FTEF

The FTES per FTEF rate for the CIS program averages 12 in the fall semesters and 11 in the spring semesters. The CIS faculty concluded that although 14 is a campus average, CIS ratio's are reasonable given the fact that maximum class quotas are limited. CIS courses require one computer workstation per student which prevents instructors from exceeding maximum quota.

B. PRESENT: Snapshot of the Program in the Current Semester:

- 1. Give a verbal description of the program as it exists at the present time. Include information on current staffing levels, current student enrollments, student learning or service are outcome implementation, number of majors, and/or other data as appropriate.**

The Computer Information Systems program is made up of majors and certificates in the areas of Computer Information Systems and Multimedia and Web Development. Two full time faculty, one 40% full time faculty member, and 4 adjuncts teach the courses in CIS program. Approximately 32 sections are scheduled each semester.

Computer Information Systems

The Computer Information Systems program provides students with education and training to qualify for jobs such as PC Service Center Technician, Field Technician, Help Desk Technician, PC Network Support Technician, and Programmer. The program also provides the lower division coursework for advanced degrees. Because of recommendations from the CIS Advisory Committee, the major and certificate are currently being revised.

Meets a documented labor market demand

According to LMI information for the El Centro Metropolitan Statistical Area (Imperial County), computer and mathematical occupations are projected to have 9 new jobs and 7 replacement jobs annually from 2006 -2016. More specifically, computer specialists are projected to increase 25%, from 80-100 jobs. Network and computer systems administrators are projected to increase 33%, from 30-40 jobs.

In addition, according to the Centers of Excellence (COE) Environmental Scan for Information and Communications Technologies (ICT), Phase One Overview, September 2009, San Diego-Imperial Region, San Francisco Bay Region, and Orange County Region at <http://www.coecc.net/>: "The Bureau of Labor Statistics (BLS) estimates that employment in computer systems design and related services will grow nearly 40% and account for almost one-fourth of all new jobs created over the next five years. The scan also indicated that the Computer and Information Technology labor market information has not been adequately studied, despite its importance to the California economy. The report states, "Several factors contribute to the lack of data, including rapidly changing technologies, inconsistent use of occupational titles, wide distribution of ICT occupations across industries and companies, and lack of widespread acceptance of the term ICT." According to the scan, "ICT encompasses all rapidly emerging, evolving and converging computer, software, networking, telecommunications, internet, programming and information systems technologies. Employment in ICT occupations spans across industries and firms of all sizes. ICT represents the cutting edge of California's innovation economy."

The COE report also states that traditional labor market analysis for ICT occupations across industries is a complicated endeavor because of the factors listed above. Industry representatives indicated that workforce studies which are focused on ICT related job functions, instead of job titles, would be more valuable. The COE, working with the Mid-Pacific ICT Center and its network of industry and community advisors, developed a set of ICT-related job functions as the framework that will guide future research efforts. Training for the CIS program at Imperial Valley College specifically falls within the functions listed below:

Function	Description
Deploy and Support End User ICT Devices	Setting up users with the ICT devices they use (computers, phones, PDAs, cell phones, printers, etc.)
Deploy and Support 3rd Party ICT Applications	Setting up organizations and users with the 3rd party applications they use on their computing and communications devices (Computer operating systems, MS Office, email, database programs, CRM, call center, etc.)
Deploy and Support Networks and Systems for Communications	Setting up and managing infrastructure and systems for communication between people and devices.
Deploy and Support Data Storage Systems	Setting up systems to store, backup and restore electronic data, including disaster recovery, SANs, NAS, iSCSI, etc.
Secure ICT Devices, Systems and Networks	Securing devices, spaces, websites, networks, storage and other ICT systems
ICT Wiring and Physical Plant	Installing and managing the physical infrastructure over which communications take place, - wires, fiber, poles, towers, conduits, etc.
Programming and Software Development	Designing and writing programs for computing and communications devices.
ICT Technical Writing	Documenting ICT related systems and processes and writing about activities and developments in the ICT field.
ICT-Related Technical Sales	Developing customer relationships and solutions
ICT Systems Analysis and Design	Collecting requirements, understanding solution elements and their constraints and designing systems and processes to meet needs

Multimedia and Web Development Program

The program was approved officially by the Chancellor's Office on November 10, 2009. The Multimedia and Web Development program is an interdisciplinary program that combines technical knowledge with design, communication, and problem solving skills. It includes multimedia software applications and programming languages that allow a student to build dynamic Web applications. Students learn how to process information and then make this information available to audiences via electronic media. The program provides students with entry level competencies for employment as a Web Developer or other position which requires knowledge to produce a variety of computer, Web, and/or multimedia graphics, animation, sound and video production, and/or content materials. The program provides entry level training to qualify students for collaborative projects working from within small design firms or for developing web pages for small or large businesses.

Meets a documented labor market demand

According to LMI information for the El Centro Metropolitan Statistical Area (Imperial County), Computer and Mathematical occupations are projected to have 9 new jobs and 7 replacement jobs annually from 2006 -2016. This SOC includes job functions for which our proposed program will train students. However, it is difficult to identify a specific occupation title in the LMI data for this program. This program will not only train students as web developers and multimedia specialists, but will also give students skills that will be valuable in many occupations.

According to the Centers of Excellence (COE) Environmental Scan for Information and Communications Technologies (ICT), Phase One Overview, September 2009, San Diego-Imperial Region, San Francisco Bay Region, and Orange County Region at <http://www.coecoc.net/>: "The Bureau of Labor Statistics (BLS) estimates that employment in computer systems design and related services will grow nearly 40% and account for almost one-fourth of all new jobs created over the next five years. The scan also indicated that the Computer and Information Technology labor market information has not been adequately studied, despite its importance to the California economy. The report states, "Several factors contribute to the lack of data, including rapidly changing technologies, inconsistent use of occupational titles, wide distribution of ICT occupations across industries and companies, and lack of widespread acceptance of the term ICT." According to the scan, "ICT encompasses all rapidly emerging, evolving and converging computer, software, networking, telecommunications, Internet, programming and information systems technologies. Employment in ICT occupations spans across industries and firms of all sizes. ICT represents the cutting edge of California's innovation economy."

The COE report also states that traditional labor market analysis for ICT occupations across industries is a complicated endeavor because of the factors listed above. Industry representatives indicated that workforce studies which are focused on ICT related job functions, instead of job titles, would be more valuable. The COE, working with the Mid-Pacific ICT Center and its network of industry and community advisors, developed a set of ICT-related job functions as the framework that will guide future research efforts. The Multimedia and Web Development program that is being proposed by Imperial Valley College specifically falls within one of the functions listed: Deploy and Support Online Systems and Services. The report describes this job function as "Working with websites, electronic commerce, supplier online systems, customer online support systems, FTP sites, etc."

When our program was being developed, the Computer Information Systems staff worked with employers who indicated that students with multimedia and web development skills would have an edge in the job market not only when they applied for jobs such as Web Developer but also when they applied for jobs in other fields, such as office administration and management --jobs that show growth in LMI data. Jobs in these fields are common in the public sector, and the public sector is the largest employer for Imperial County -- law enforcement, department of corrections, homeland security, county, cities, public utilities, and education. These skills will also be valuable for private sector jobs such as jobs in the banking or retail areas. It is also our contention that the Multimedia and Web Development program will train employees who need to upgrade their digital media skills as their jobs evolve and/or will train employees who want to advance/promote. Our conclusions are backed up by the COE Environmental Scan for ICT occupations, quoted above and attached to this email. Employers have concurred that they need people who can process images, take and process basic digital video, update websites, manage outreach, etc. These job skills are embedded in jobs without "multimedia" or "web" in the job title.

Digital media skills are now part of basic, digital literacy that people need to function in office administration, management, and advertising. This issue is addressed in the study, "Digital Media Skills: In Demand across California Industry Sectors." It is from 2006, but still relevant. http://www.cccmel.net/files/Digital_Media_Skills_Report.pdf This project is a contribution to the California Community College participants around the state from the statewide Multimedia & Entertainment Initiative (MEI), part of the Economic and Workforce Development Program. Key findings of the study relate to the Multimedia and Web Development program that IVC has developed. The key findings include the information below:

Digital media skills (not just "digital skills") are embedded in occupations across the organization and across industry sectors. The study shows that digital media skills have migrated from the more specialized workforce of the digital media industry sector to the general skill set of employees across industries and across the organization.

By the level of importance that respondents placed on the use of these skills, the data suggests that employers are coming to expect these skills from their workforce. The study suggests that these skills are increasingly seen as prerequisites of employment, or are at least expected of a large percentage of the workforce.

Expertise in digital media skills is overwhelmingly obtained without formal training. However, the study suggests that informal learning does not provide the worker with "expert-level" skills.

There is a clear differentiation between the usage of those skills that involve incorporating existing digital media components into communication products and developing the digital media components themselves. The more advanced digital media skills, such as animation and graphic design, require a higher level of software expertise in combination with some artistic talents.

LMI 2006-2016 Occupational Employment Projections for the El Centro Metropolitan Statistical Area (Imperial County) indicates the following jobs as part of the fastest growing occupations in the El Centro area:

Executive secretaries and administrative assistants, showing a 22.7% increase, from 440 – 540

General office clerks, showing a 21.1% increase from 1170-1420

Advertising, Marketing, Promotions, Public Relations, and Sales Managers, showing a 23.5% increase from 170-210

Computer Information Systems Program Completers Fall 2007 – Spring 2010

Academic Year	CIS		Total
	Majors	Certificates	
2007-08	6	0	6
2008-09	6	0	6
2009-10	6	6	12
Total	18	6	24

Note: Because it wasn't approved by the Chancellor's Office until 2009-10, there will be no data for the Multimedia and Web Development Program until the next program review cycle.

2. **Verbally describe any outside factors that are currently affecting the program. (For example: changes in job market, changing technologies, changes in transfer destinations, etc.)**

The continuous advance of technology and advisory group recommendations play a major role in decisions to upgrade equipment, personnel, curriculum and facilities for the CIS program.

3. **List any significant issues or problems that the program is immediately facing.**

- Budget issues may affect funds to pay for instructors for the program and to pay for hardware and software upgrades needed to meet the demands of industry standards to meet the challenges of changing technology.
- Employment factors have led to higher class demand, but budget issues may lead to a reduction in the number of sections for students.
- Additional faculty members are needed to implement the Cisco Academy, but budget restraints prevent hiring.

C. FUTURE: Program Objectives for the Next Three Academic Years: 2009-10, 2010-11, 2011-12

1. Identify the program objectives for the next three academic years, making sure these objectives are consistent with the college's Educational Master Plan goals. Include how accomplishment is to be identified or measured and identify the planned completion dates. If any objectives are anticipated to extend beyond this three-year period, identify how much is to be accomplished by the end of this review period and performance measures.

- Continue to work with advisory committee to provide a quality program that meets industry needs in the areas of PC hardware repair, programming, networking, multimedia, and electronic commerce.
- Hire staff to develop and implement CISCO curriculum, expand the multimedia curriculum to meet student demand, and maintain current level of offerings in other CIS courses.
- Train faculty who will be teaching in the CISCO program.
- Meet the demands of implementing a curriculum that addresses the continuous change in hardware and software.
- Upgrade and improve instructional delivery equipment/software.
- Improve success and retention rates through implementation of SLOs
- Meet with basic skills committee to define strategies for improved student success

2. Identify how student learning or service area outcomes will be expanded and fully implemented into the program. Include a progress timeline for implementation and program improvement.

Continue SLO timeline developed for the program. (See A.3 above) Courses will be evaluated and assessed each year.

3. Identify any resources needed to accomplish these objectives. Identify any obstacles toward accomplishment and the plan to surmount these obstacles.

Resources needed for the next three years have been outlined in the table below. The obstacles include funds to pay adjunct instructors to continue the program, to acquire hardware and software to meet the changing needs of technology, and to pay adjuncts for assessing and identifying SLOs.

Three-year resource projection for facilities, equipment, and personnel

FACILITIES	2011-12	2012-13	2013-14
Office space for full-time staff	X		
Maintenance of classrooms to improve the learning environment, including painting, carpeting, replacement of desks and chairs, lighting, acoustics, and remodeling.	X	X	X
Remodeling of 800 Building including new air conditioning system	X		
EQUIPMENT/TECHNOLOGY	2011-12	2012-13	2013-14
801/803/901/902			
Equipment upgrade and repair, including floppy drives, CD drives, hard drives, mother boards, monitors, keyboards, mice, and cables	X	X	X
801 New student computer workstations			X
803 New student computer workstations	X		
901 New student computer workstations			
902 New student computer workstations		X	
Printer repair and maintenance	X	X	X
Demonstration unit repair and maintenance	X	X	X
New demonstration units (In order of priority: 901/913/902/801/803)	X	X	X
Software upgrade/software licenses: Multimedia; Cisco; NetSupport	X	X	X
PERSONNEL	2011-12	2012-13	2013-14
Full-time instructor replacements		X	X
New full-time instructors	X		
Part-time instructors	X	X	X
Continued instructional technology support personnel	X	X	X
OTHER	2011-12	2012-13	2013-14
Extra duty compensation for reviewing articulation agreements with local high schools and ROP	X	X	X
Budget allotment for adjunct's to develop SLOs	X		

4. Identify any outside factors that might influence your program during the next three years.

Over the next three years we anticipate that the enrollment trends that we are seeing will continue; if that is the case the CIS program is going to find it increasingly difficult to meet the needs of our students. As overall college enrollment increases, there is greater demand for the required course for the majority of transfer students, CIS 101. Finally, the most significant challenge we are going to face is to effectively meet the needs of our basic skills students so that they have a better chance to successfully complete courses in CIS trends suggest that the population of under-prepared students is unlikely to decrease in the immediate future. The CIS program is going to need to partner with Basic Skills, ESL, English and Counseling programs to provide student retention and success in the CIS courses.

D. Program Data

Program Review - Computer Information System Program
Enrollment Count at Census

Course	Fall			Spring			Summer			Winter			Grand Total				
	2007	2008	2009	Total	2008	2009	2010	Total	2007	2008	2009	Total		2008	2009	2010	Total
	CIS 100	90	107	45	242	85	41	60	186	8	52	18		78	9		
CIS 101	280	289	298	867	264	265	244	773	29	28	30	87	28	29		57	1784
CIS 102	65	79	44	188	47	43	36	126	7			7					321
CIS 104					24	22	23	69									69
CIS 106	22	22	22	66	23	21	21	65									131
CIS 107	23	18	21	62	20	20	22	62									124
CIS 108	20	22		42	25	14	28	67									109
CIS 120	101	132	40	273	93	76	57	226	10	44		54	11			11	564
CIS 121	91	97	45	233	55	57	38	150		35		35					418
CIS 124	130	181	82	393	136	124	64	324	55	36	12	103	26	24		50	870
CIS 125	74	93	50	217	79	66	49	194	28	21	15	64	22	15		37	512
CIS 130	50	33	28	111	37	37	45	119									230
CIS 131	48	26	26	100	18	19	13	50									150

CIS 134		20		20	27			27													27															47
CIS 135		16		16	17			17													17															33
CIS 136		11		11	17			17													17															28
CIS 137				30																																30
CIS 146	33	17		50	20	23															43	10	12								22				115	
CIS 147	29	12		41	9	20															29														70	
CIS 148	23	14		37	7	19															26														63	
CIS 149				30																	31	31													61	
CIS 155																					32	32													32	
CIS 202	19	26		45	28	27															84														129	
CIS 204	19			19	16																16														35	
CIS 208	20	24		44																															44	
CIS 210		10		40		22															46														86	
CIS 212				32	32																														32	
CIS 214																					26	26													26	
CIS 50	70	33	36	139	39	41															112	30									30				281	
Total	1207	1282	859	3348	1025	1018	874	2917	177	228	75	480	96	68																			164	6909		

**Computer Information System Program
Number of Sections**

Course	Fall			Spring			Summer			Winter			Grand Total				
	2007	2008	2009	Total	2008	2009	2010	Total	2007	2008	2009	Total		2008	2009	2010	Total
	CIS 050	2	1	1	4	2	2	1	5	1				1			
CIS 100	6	5	2	13	6	4	2	12	1	3	1	5	1		1	31	
CIS 101	9	9	9	27	9	9	8	26	1	1	1	3	1	1	2	58	
CIS 102	3	2	1	6	3	2	1	6	1			1				13	
CIS 104					1	1	1	3								3	
CIS 106	1	1	1	3	1	1	1	3								6	
CIS 107	1	1	1	3	1	1	1	3								6	
CIS 108	1	1		2	1	1	1	3								5	
CIS 120	7	7	2	16	6	5	2	13	1	2		3	1		1	33	
CIS 121	4	5	2	11	3	3	2	8		2		2				21	
CIS 124	6	8	3	17	7	7	2	16	3	2	1	6	2	1	3	42	
CIS 125	4	5	3	12	4	4	2	10	2	2	1	5	2	1	3	30	
CIS 130	3	2	1	6	2	2	2	6								12	

**Computer Information System Program
Average Number of Students per Section**

Course	Fall			Spring			Summer			Winter			Grand Total														
	2007	2008	2009	2008	2009	2010	2007	2008	2009	2008	2009	2010		Total													
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total		Total													
CIS 050	34	31	36	19	19	31	22						22												26		
CIS 100	15	19	21	14	11	24	8	16	15	9				14										9		15	
CIS 101	31	32	33	29	29	31	29	28	30	28	29			29										29		31	
CIS 102	22	40	44	16	22	36	7						7													25	
CIS 104				24	22	23								23													23
CIS 106	21	22	22	23	21	21								22													22
CIS 107	23	19	21	20	20	22								21													21
CIS 108	20	22		25	14	28								22													22
CIS 120	14	16	20	14	14	27	10	20						16										11			16
CIS 121	20	16	22	16	19	17								18													18
CIS 124	19	20	27	18	17	30	17	16	12	13	24			16										17			19
CIS 125	16	17	17	14	15	20	13	11	8	10	15			11										11			15
CIS 130	16	15	28	17	18	21								18													18

CIS 131	15	13	25	16	9	18	13	12														14
CIS 134		28		28		33		33														31
CIS 135		23		23		23		23														23
CIS 136		18		18		22		22														20
CIS 137			30	30																		30
CIS 146	31	27		29	25	33		29	10	19	15											24
CIS 147	27	27		27	10	30		20														24
CIS 148	22	26		24	10	28		19														22
CIS 149			30	30			31	31														31
CIS 155							32	32														32
CIS 202	19	26		23	28	27	29	28														26
CIS 204	19			19	16			16														18
CIS 208	20	24		22																		22
CIS 210		10	30	20		22	24	23														22
CIS 212			32	32																		32
CIS 214							26	26														26
Avg.	21	22	27	22	18	21	26	21	15	17	16	16	13	23	16	23	16	21	21	16	21	21

**Computer Information System Program
Student Success Rate**

Course	Fall			Spring			Summer			Winter			Grand Total				
	2007	2008	2009	Total	2008	2009	2010	Total	2007	2008	2009	Total		2008	2009	2010	Total
	CIS 050	51%			51%	76%			76%	68%	68%				68%		
CIS 100	78%	68%	78%	75%	68%	73%	73%	71%	75%	87%	80%	81%	89%				77%
CIS 101	63%	57%	58%	60%	52%	57%	59%	56%	83%	89%	87%	86%	86%	86%			71%
CIS 102	51%	59%	68%	59%	64%	58%	67%	63%	71%			71%	0%				55%
CIS 104					29%	36%	65%	44%									44%
CIS 106	86%	73%	82%	80%	70%	76%	81%	76%									78%
CIS 107	70%	53%	81%	68%	65%	70%	86%	74%									71%
CIS 108	65%	82%		73%	72%	79%	96%	82%									79%
CIS 120	84%	87%	80%	84%	82%	80%	83%	82%	90%	93%		91%	73%				83%
CIS 121	78%	80%	89%	82%	85%	88%	74%	82%		94%		94%					84%
CIS 124	85%	86%	78%	83%	80%	84%	90%	85%	92%	83%	83%	86%	92%	88%			86%
CIS 125	70%	80%	62%	71%	64%	76%	75%	72%	96%	86%	100%	94%	89%	67%			79%
CIS 130	88%	70%	81%	79%	76%	69%	95%	80%									80%
CIS 131	89%	54%	67%	70%	82%	79%	92%	85%									77%

CIS 134		71%		71%		67%																69%
CIS 135		57%		57%		76%																67%
CIS 136		64%		64%		65%																64%
CIS 137				33%																		33%
CIS 146	84%	76%		80%	75%	78%			60%	70%					65%							74%
CIS 147	78%	50%		64%	100%	90%			95%													80%
CIS 148	82%	43%		62%	100%	89%			95%													79%
CIS 149				83%				65%														74%
CIS 155								69%														69%
CIS 202	63%	38%		51%	50%	30%			50%													50%
CIS 204	42%			42%	38%				38%													40%
CIS 208	55%	33%		44%																		44%
CIS 210		60%		45%		50%		42%	46%													45%
CIS 212				53%																		53%
CIS 214								77%	77%													77%
CIS 50		81%		68%		49%		68%	58%													63%
Avg.	72%	65%	67%	68%	70%	69%	75%	71%	79%	86%	88%	84%	72%	80%		74%						72%

**Computer Information System Program
Student Retention Rate**

Course	Fall			Spring			Summer			Winter			Grand Total				
	2007	2008	2009	Total	2008	2009	2010	Total	2007	2008	2009	Total		2008	2009	2010	Total
	CIS 050	68%			68%	97%			97%	100%					100%		
CIS 100	92%	86%	95%	91%	90%	95%	94%	93%	100%	100%	96%	93%	96%	89%			89%
CIS 101	76%	77%	82%	78%	76%	73%	79%	76%	90%	89%	87%	89%	89%	90%			82%
CIS 102	82%	78%	93%	84%	83%	81%	97%	87%	71%				71%	0%			73%
CIS 104					54%	59%	87%	67%									67%
CIS 106	95%	91%	95%	94%	87%	95%	90%	91%									92%
CIS 107	78%	68%	90%	79%	75%	85%	91%	84%									81%
CIS 108	90%	100%		95%	80%	93%	96%	90%									92%
CIS 120	93%	97%	95%	95%	94%	92%	89%	91%	90%	98%			94%	73%			91%
CIS 121	88%	95%	96%	93%	96%	95%	94%	95%		100%			100%				95%
CIS 124	98%	98%	90%	95%	96%	93%	98%	96%	92%	89%	100%	100%	94%	92%	88%		94%
CIS 125	83%	94%	86%	88%	93%	90%	90%	91%	96%	95%	100%	100%	97%	89%	73%		90%
CIS130	88%	93%	100%	94%	97%	80%	100%	92%									93%
CIS 131	98%	88%	85%	90%	100%	95%	92%	96%									93%

CIS 134	81%		81%																																					89%
CIS 135	93%		93%																96%																					93%
CIS 136	64%		64%																	88%																				76%
CIS 137				83%																																				83%
CIS 146	100%	88%	88%			80%		96%													88%		90%		80%											85%				89%
CIS 147	93%	75%	75%			100%		100%												100%																				92%
CIS 148	91%	64%	64%			100%		100%												100%																				89%
CIS 149				97%										84%																										89%
CIS 155													84%																											90%
CIS 202	84%	58%	58%							71%		57%	41%	76%							58%																			63%
CIS 204	58%									58%		56%									56%																			57%
CIS 208	80%	63%	63%							71%																														71%
CIS 210		80%	80%							73%											61%																			67%
CIS 212										72%																														72%
CIS 214																				88%																				88%
CIS 50		90%	86%	86%						88%											91%																			89%
Avg.	86%	83%	88%	88%	85%	85%	85%	85%	89%	86%	91%	92%	95%	92%	72%	83%																								86%

Grade Distribution

Program	Term	Sem.	Yr.	Course	A	B	C	D	F	CR	P	Other	W	Total	Success Rate	Retention Rate
CIS	200730	Sum.	2007	CIS050						15		7		22	68.2%	100.0%
CIS	200810	Fall	2007	CIS050						35		11	22	68	51.5%	67.6%
CIS	200820	Spr.	2008	CIS050						29		8	1	38	76.3%	97.4%
CIS	200910	Fall	2008	CIS050						25		3	3	31	80.6%	90.3%
CIS	200920	Spr.	2009	CIS050						19		14	6	39	48.7%	84.6%
CIS	201010	Fall	2009	CIS050						20		11	5	36	55.6%	86.1%
CIS	201020	Spr.	2010	CIS050							21	9	1	31	67.7%	96.8%
CIS	200730	Sum.	2007	CIS100						6		2		8	75.0%	100.0%
CIS	200810	Fall	2007	CIS100						68		12	7	87	78.2%	92.0%
CIS	200815	Win.	2008	CIS100						8		0	1	9	88.9%	88.9%
CIS	200820	Spr.	2008	CIS100						55		18	8	81	67.9%	90.1%
CIS	200830	Sum.	2008	CIS100						41		4	2	47	87.2%	95.7%
CIS	200910	Fall	2008	CIS100						63		17	13	93	67.7%	86.0%
CIS	200920	Spr.	2009	CIS100	22	2	8	1	5			4	2	44	72.7%	95.5%

CIS	200930	Sum.	2009	CIS100	9	2	1	1	1	1	0	1	15	80.0%	93.3%
CIS	201010	Fall	2009	CIS100	14	12	6	1	5	1	1	2	41	78.0%	95.1%
CIS	201020	Spr.	2010	CIS100	22	6	7	3	7	0	0	3	48	72.9%	93.8%
CIS	200730	Sum.	2007	CIS101	20	3	1	2	2	0	0	3	29	82.8%	89.7%
CIS	200810	Fall	2007	CIS101	47	60	70	8	28	0	0	67	280	63.2%	76.1%
CIS	200815	Win.	2008	CIS101	21	3	1	1	1	0	0	3	28	85.7%	89.3%
CIS	200820	Spr.	2008	CIS101	39	50	47	26	36	1	1	63	262	51.9%	76.0%
CIS	200830	Sum.	2008	CIS101	17	7	1	34	34	0	0	3	28	89.3%	89.3%
CIS	200910	Fall	2008	CIS101	33	78	55	22	34	0	0	67	289	57.4%	76.8%
CIS	200915	Win.	2009	CIS101	12	7	6	1	1	0	0	3	29	86.2%	89.7%
CIS	200920	Spr.	2009	CIS101	36	60	55	15	28	1	1	71	266	56.8%	73.3%
CIS	200930	Sum.	2009	CIS101	12	12	2	43	43	0	0	4	30	86.7%	86.7%
CIS	201010	Fall	2009	CIS101	41	69	68	28	43	1	1	56	306	58.2%	81.7%
CIS	201020	Spr.	2010	CIS101	20	57	66	14	33	2	2	52	244	58.6%	78.7%
CIS	200730	Sum.	2007	CIS102						5	0	2	7	71.4%	71.4%
CIS	200810	Fall	2007	CIS102						33	20	12	65	50.8%	81.5%
CIS	200815	Win.	2008	CIS102							2	2	4	0.0%	50.0%

CIS	200820	Spr.	2008	CIS102							30							9	8	47	63.8%	83.0%
CIS	200910	Fall	2008	CIS102							47							15	17	79	59.5%	78.5%
CIS	200920	Spr.	2009	CIS102							25							10	8	43	58.1%	81.4%
CIS	201010	Fall	2009	CIS102								30						11	3	44	68.2%	93.2%
CIS	201020	Spr.	2010	CIS102								24						11	1	36	66.7%	97.2%
CIS	200820	Spr.	2008	CIS104	1	3	3	1	5									0	11	24	29.2%	54.2%
CIS	200920	Spr.	2009	CIS104	1	2	5	1	4									0	9	22	36.4%	59.1%
CIS	201020	Spr.	2010	CIS104	2	6	7	2	3									0	3	23	65.2%	87.0%
CIS	200810	Fall	2007	CIS106	8	9	1	1	1									0	1	21	85.7%	95.2%
CIS	200820	Spr.	2008	CIS106	5	5	6	2	2									0	3	23	69.6%	87.0%
CIS	200910	Fall	2008	CIS106	5	6	5	3	1									0	2	22	72.7%	90.9%
CIS	200920	Spr.	2009	CIS106	1	9	6	2	2									0	1	21	76.2%	95.2%
CIS	201010	Fall	2009	CIS106	4	5	9	3										0	1	22	81.8%	95.5%
CIS	201020	Spr.	2010	CIS106	3	9	5	1	1									0	2	21	81.0%	90.5%
CIS	200810	Fall	2007	CIS107	2	4	10	2										0	5	23	69.6%	78.3%
CIS	200820	Spr.	2008	CIS107	3	4	6	1	1									0	5	20	65.0%	75.0%
CIS	200910	Fall	2008	CIS107	3	2	5	3										0	6	19	52.6%	68.4%

CIS	200920	Spr.	2009	CIS107	5	4	5	2	1				0	3	20	70.0%	85.0%
CIS	201010	Fall	2009	CIS107	3	1	13	2					0	2	21	81.0%	90.5%
CIS	201020	Spr.	2010	CIS107	3	3	13	1					0	2	22	86.4%	90.9%
CIS	200810	Fall	2007	CIS108	12		1		5				0	2	20	65.0%	90.0%
CIS	200820	Spr.	2008	CIS108	15	2	1	1	1				0	5	25	72.0%	80.0%
CIS	200910	Fall	2008	CIS108	15	1	2	1	3				0		22	81.8%	100.0%
CIS	200920	Spr.	2009	CIS108	9	1	1		2				0	1	14	78.6%	92.9%
CIS	201020	Spr.	2010	CIS108	20	6	1						0	1	28	96.4%	96.4%
CIS	200730	Sum.	2007	CIS120	7	1	1						0	1	10	90.0%	90.0%
CIS	200810	Fall	2007	CIS120	52	22	8	2	7				0	7	98	83.7%	92.9%
CIS	200815	Win.	2008	CIS120	3	5							0	3	11	72.7%	72.7%
CIS	200820	Spr.	2008	CIS120	45	20	3	3	6				1	5	83	81.9%	94.0%
CIS	200830	Sum.	2008	CIS120	7	1	3			26			2	1	40	92.5%	97.5%
CIS	200910	Fall	2008	CIS120	66	25	7	1	10	3			3	3	118	85.6%	97.5%
CIS	200920	Spr.	2009	CIS120	41	13	3		7				1	6	71	80.3%	91.5%
CIS	201010	Fall	2009	CIS120	13	14	5	1	5				0	2	40	80.0%	95.0%
CIS	201020	Spr.	2010	CIS120	26	16	2	1	2				0	6	53	83.0%	88.7%

CIS	200810	Fall	2007	CIS121	38	18	6			8				0	10	80	77.5%	87.5%
CIS	200820	Spr.	2008	CIS121	24	11	5			5				0	2	47	85.1%	95.7%
CIS	200830	Sum.	2008	CIS121	3	3	2	1	25					1		35	94.3%	100.0%
CIS	200910	Fall	2008	CIS121	40	15	8	1		11				0	4	79	79.7%	94.9%
CIS	200920	Spr.	2009	CIS121	33	10	4		2	4				0	3	56	87.5%	94.6%
CIS	201010	Fall	2009	CIS121	28	10	2			2				1	2	45	88.9%	95.6%
CIS	201020	Spr.	2010	CIS121	15	7	3	3		4				0	2	34	73.5%	94.1%
CIS	200730	Sum.	2007	CIS124	35	5	7							0	4	51	92.2%	92.2%
CIS	200810	Fall	2007	CIS124	62	29	7	2		13				0	2	115	85.2%	98.3%
CIS	200815	Win.	2008	CIS124	24									0	2	26	92.3%	92.3%
CIS	200820	Spr.	2008	CIS124	59	35	5	3	1	9				8	5	125	80.0%	96.0%
CIS	200830	Sum.	2008	CIS124	21	5	2	1	2	1				0	4	36	83.3%	88.9%
CIS	200910	Fall	2008	CIS124	97	29	11	5	2	14				0	4	162	85.8%	97.5%
CIS	200915	Win.	2009	CIS124	14	1	6							0	3	24	87.5%	87.5%
CIS	200920	Spr.	2009	CIS124	73	22	7	3	1	8				0	8	122	84.4%	93.4%
CIS	200930	Sum.	2009	CIS124	6	2	2	1		1				0		12	83.3%	100.0%
CIS	201010	Fall	2009	CIS124	36	18	8			10				0	8	80	77.5%	90.0%

CIS	201020	Spr.	2010	CIS124	36	12	6	2	3				0	1	60	90.0%	98.3%
CIS	200730	Sum.	2007	CIS125	8	10	6						0	1	25	96.0%	96.0%
CIS	200810	Fall	2007	CIS125	29	11	3	2	4	1			2	11	63	69.8%	82.5%
CIS	200815	Win.	2008	CIS125	15	1	1						0	2	19	89.5%	89.5%
CIS	200820	Spr.	2008	CIS125	15	17	4	4	10				2	4	56	64.3%	92.9%
CIS	200830	Sum.	2008	CIS125	10	5	1	1	1	2			0	1	21	85.7%	95.2%
CIS	200910	Fall	2008	CIS125	36	19	13	5	7	2			0	5	87	80.5%	94.3%
CIS	200915	Win.	2009	CIS125	5	2	3	1					0	4	15	66.7%	73.3%
CIS	200920	Spr.	2009	CIS125	33	11	1	2	5				1	6	59	76.3%	89.8%
CIS	200930	Sum.	2009	CIS125	6	2							0		8	100.0%	100.0%
CIS	201010	Fall	2009	CIS125	13	10	8	2	10				0	7	50	62.0%	86.0%
CIS	201020	Spr.	2010	CIS125	23	5	2	1	5				0	4	40	75.0%	90.0%
CIS	200810	Fall	2007	CIS130	31	9	2						0	6	48	87.5%	87.5%
CIS	200820	Spr.	2008	CIS130	21	2	2	3	4				0	1	33	75.8%	97.0%
CIS	200910	Fall	2008	CIS130	12	4	4		7	1			0	2	30	70.0%	93.3%
CIS	200920	Spr.	2009	CIS130	17	4	2		4	1			0	7	35	68.6%	80.0%
CIS	201010	Fall	2009	CIS130	13	7	5	1	3				2		31	80.6%	100.0%

CIS	201020	Spr.	2010	CIS130	34	4	2				2				0			42	95.2%	100.0%
CIS	200810	Fall	2007	CIS131	17	19	3				4				0	1		44	88.6%	97.7%
CIS	200820	Spr.	2008	CIS131	13		1				3				0			17	82.4%	100.0%
CIS	200910	Fall	2008	CIS131	8	4	2	1			5				3	3		26	53.8%	88.5%
CIS	200920	Spr.	2009	CIS131	11	2	2	2			1				0	1		19	78.9%	94.7%
CIS	201010	Fall	2009	CIS131	8	3	7	3			2				0	4		27	66.7%	85.2%
CIS	201020	Spr.	2010	CIS131	3	7	2								0	1		13	92.3%	92.3%
CIS	200910	Fall	2008	CIS134	5	8	2				1				1	4		21	71.4%	81.0%
CIS	200920	Spr.	2009	CIS134	8	8	2	1			7				0	1		27	66.7%	96.3%
CIS	200910	Fall	2008	CIS135	5	1	2				5				0	1		14	57.1%	92.9%
CIS	200920	Spr.	2009	CIS135	7	5	1				3				0	1		17	76.5%	94.1%
CIS	200910	Fall	2008	CIS136	5	2									0	4		11	63.6%	63.6%
CIS	200920	Spr.	2009	CIS136	8	2	1				4				0	2		17	64.7%	88.2%
CIS	201010	Fall	2009	CIS137	7	2	1	7			8				0	5		30	33.3%	83.3%
CIS	200730	Sum.	2007	CIS146	1	5					3				0	1		10	60.0%	90.0%
CIS	200810	Fall	2007	CIS146	16	10		1			4				0			31	83.9%	100.0%
CIS	200820	Spr.	2008	CIS146	9	3	2	1							0	4		20	75.0%	80.0%

CIS	200830	Sum.	2008	CIS146	5	2				1									0	2	10	70.0%	80.0%
CIS	200910	Fall	2008	CIS146	5	7	1				2								0	2	17	76.5%	88.2%
CIS	200920	Spr.	2009	CIS146	9	5	4				4								0	1	23	78.3%	95.7%
CIS	200810	Fall	2007	CIS147	15	5	1				4								0	2	27	77.8%	92.6%
CIS	200820	Spr.	2008	CIS147	6														0		6	100.0%	100.0%
CIS	200910	Fall	2008	CIS147	3	3					3								0	3	12	50.0%	75.0%
CIS	200920	Spr.	2009	CIS147	6	10	3				2								0		21	90.5%	100.0%
CIS	200810	Fall	2007	CIS148	16	2					2								0	2	22	81.8%	90.9%
CIS	200820	Spr.	2008	CIS148	7														0		7	100.0%	100.0%
CIS	200910	Fall	2008	CIS148	5	1					3								0	5	14	42.9%	64.3%
CIS	200920	Spr.	2009	CIS148	13	4					2								0		19	89.5%	100.0%
CIS	201010	Fall	2009	CIS149	7	10	8				2								0	1	30	83.3%	96.7%
CIS	201020	Spr.	2010	CIS149	12	4	4				6								0	5	31	64.5%	83.9%
CIS	201020	Spr.	2010	CIS155	13	4	5	3			2								0	5	32	68.8%	84.4%
CIS	200810	Fall	2007	CIS202	3	4	5	1			3								0	3	19	63.2%	84.2%
CIS	200820	Spr.	2008	CIS202	3	5	6				2								0	12	28	50.0%	57.1%
CIS	200910	Fall	2008	CIS202	2	4	4	1			4								0	11	26	38.5%	57.7%

CIS	200920	Spr.	2009	CIS202	3	4	1	1	2			0	16	27	29.6%	40.7%
CIS	201020	Spr.	2010	CIS202	2	5	13	1	1			0	7	29	69.0%	75.9%
CIS	200810	Fall	2007	CIS204	3	4	1		3			0	8	19	42.1%	57.9%
CIS	200820	Spr.	2008	CIS204	2	1	3		3			0	7	16	37.5%	56.3%
CIS	200810	Fall	2007	CIS208	1	4	6	1	4			0	4	20	55.0%	80.0%
CIS	200910	Fall	2008	CIS208	1	4	3	2	5			0	9	24	33.3%	62.5%
CIS	200910	Fall	2008	CIS210	1	3	2	2				0	2	10	60.0%	80.0%
CIS	200920	Spr.	2009	CIS210	2	4	5	1				0	10	22	50.0%	54.5%
CIS	201010	Fall	2009	CIS210	1	2	6	6	5			0	10	30	30.0%	66.7%
CIS	201020	Spr.	2010	CIS210	3	5	2		6			0	8	24	41.7%	66.7%
CIS	201010	Fall	2009	CIS212	6	9	2		6			0	9	32	53.1%	71.9%
CIS	201020	Spr.	2010	CIS214	7	6	7		3			0	3	26	76.9%	88.5%

**Computer Information System Program
Full Time Equivalent Student (FTEs)**

Course	Fall			Spring			Summer			Winter			Grand Total	
	2007	2008	2009	2008	2009	2010	2007	2008	2009	2008	2009	2010		Total
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total		Total
CIS 100	2.5	3.1	1.3	2.4	1.2	1.7	0.2	1.5	0.5	0.3			0.3	14.7
CIS 101	29.0	29.9	30.8	27.3	27.4	25.2	2.9	2.9	3.2	2.8	3.0		5.9	184.5
CIS 102	3.9	6.0	3.5	3.5	3.0	2.2	0.4						0.4	22.4
CIS 104				2.5	2.3	2.3								7.0
CIS 106	2.7	2.7	2.7	2.8	2.6	2.6								16.0
CIS 107	2.8	2.2	2.6	2.4	2.4	2.7								15.1
CIS 108	3.7	3.5		4.6	2.2	4.1								18.0
CIS 120	2.8	3.7	1.1	2.2	2.4	1.8	0.3	1.4		0.3			0.3	16.1
CIS 121	2.5	2.8	1.3	1.5	1.6	1.1		1.1					1.1	11.9
CIS 124	3.6	5.0	2.3	3.3	3.6	2.0	1.9	1.2	0.4	0.8	0.8		1.6	24.9
CIS 125	2.0	2.8	1.5	2.2	2.0	1.4	0.8	0.6	0.4	0.7	0.4		1.1	14.9
CIS 130	1.4	0.9	0.8	0.8	1.2	0.5								5.5
CIS 131	1.3	0.7	0.7	0.5	0.5	0.4								4.1

CIS 134	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.6		
CIS 135	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.1		
CIS 136	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2		
CIS 137		3.1	3.1	3.1	3.1	3.1	3.1	3.1											3.1		
CIS 146	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	4.3		
CIS 147	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.7		
CIS 148	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	2.4		
CIS 149		3.1	3.1	3.1	3.1	3.1	3.1	3.1				3.2	3.2	3.2	3.2	3.2	3.2	3.2	6.3		
CIS 155												3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		
CIS 202	2.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.8	3.0	3.0	3.0	3.0	3.0	3.0	8.7	13.4		
CIS 204	2.0								1.7	1.7								1.7	3.6		
CIS 208	2.1	2.5	2.5	2.5	2.5	2.5	2.5	2.5		4.5									4.5		
CIS 210		1.0	3.1	3.1	3.1	3.1	3.1	3.1	4.1	4.1	2.3	2.5	2.5	2.5	4.8	4.8	4.8	4.8	8.9		
CIS 212			3.3	3.3	3.3	3.3	3.3	3.3											3.3		
CIS 214																			2.7		
CIS 50	2.4	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.1	1.1	1.1	3.8	3.8	3.8	1.0	9.6		
Total	68.7	76.0	76.0	62.5	62.5	62.8	62.8	63.3	63.3	63.7	63.7	63.7	189.8	8.0	9.5	4.5	22.0	4.8	4.3	9.2	428.2

**Computer Information System Program
Full Time Equivalent Faculty (FTEf)**

Course	Fall			Spring			Summer			Winter			Grand Total				
	2007	2008	2009	Total	2008	2009	2010	Total	2007	2008	2009	Total		2008	2009	2010	Total
	CIS 100	0.40	0.33	0.13	0.87	0.40	0.27	0.13	0.80	0.07	0.20	0.07		0.33	0.07	0.07	
CIS 101	1.80	1.80	1.80	5.40	1.80	1.80	1.60	5.20	0.20	0.20	0.20	0.60	0.20	0.20	0.20	0.40	11.60
CIS 102	0.60	0.40	0.20	1.20	0.60	0.40	0.20	1.20	0.20			0.20					2.60
CIS 104					0.20	0.20	0.20	0.60									0.60
CIS 106	0.27	0.27	0.27	0.80	0.27	0.27	0.27	0.80									1.60
CIS 107	0.27	0.27	0.27	0.80	0.27	0.27	0.27	0.80									1.60
CIS 108	0.27	0.27		0.53	0.27	0.27	0.27	0.80									1.33
CIS 120	0.47	0.47	0.13	1.07	0.40	0.33	0.13	0.87	0.07	0.13		0.20	0.07			0.07	2.20
CIS 121	0.27	0.33	0.13	0.73	0.20	0.20	0.13	0.53		0.13		0.13					1.40
CIS 124	0.40	0.53	0.20	1.13	0.47	0.47	0.13	1.07	0.20	0.13	0.07	0.40	0.13	0.07		0.20	2.80
CIS 125	0.27	0.33	0.20	0.80	0.27	0.27	0.13	0.67	0.13	0.13	0.07	0.33	0.13	0.07		0.20	2.00
CIS 130	0.20	0.13	0.07	0.40	0.13	0.13	0.13	0.40									0.80
CIS 131	0.20	0.13	0.07	0.40	0.13	0.07	0.07	0.27									0.67

CIS 134	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.13
CIS 135	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.13
CIS 136	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.13
CIS 137			0.20	0.20															0.20
CIS 146	0.07	0.07	0.13	0.13	0.07	0.07	0.07	0.07	0.07	0.13	0.07	0.07	0.07	0.07	0.07	0.07	0.13	0.13	0.40
CIS 147	0.07	0.07	0.13	0.13	0.07	0.07	0.07	0.07	0.07	0.13	0.07	0.07	0.07	0.07	0.07	0.13	0.13	0.13	0.27
CIS 148	0.07	0.07	0.13	0.13	0.07	0.07	0.07	0.07	0.07	0.13	0.07	0.07	0.07	0.07	0.07	0.13	0.13	0.13	0.27
CIS 149			0.20	0.20						0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.40
CIS 155										0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
CIS 202	0.20	0.20	0.40	0.40	0.20	0.20	0.20	0.20	0.20	0.60	0.20	0.20	0.20	0.20	0.60	0.20	0.20	0.20	1.00
CIS 204	0.20	0.20	0.20	0.20						0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.40
CIS 208	0.20	0.20	0.40	0.40															0.40
CIS 210	0.20	0.20	0.40	0.40	0.20	0.20	0.20	0.20	0.20	0.40	0.20	0.20	0.20	0.20	0.40	0.20	0.20	0.20	0.80
CIS 212			0.20	0.20															0.20
CIS 214										0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
CIS 50	0.27	0.13	0.13	0.53	0.27	0.27	0.27	0.27	0.27	0.67	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.33
Total	6.47	6.40	4.40	17.27	6.27	6.00	6.00	4.80	17.07	1.07	1.07	1.00	0.40	2.47	0.60	0.33	0.93	37.73	

**Computer Information System Program
FTEs per FTEf**

Course	Fall			Spring			Summer			Winter			Grand Total				
	2007	2008	2009	Total	2008	2009	2010	Total	2007	2008	2009	Total		2008	2009	2010	Total
	CIS 100	6.2	9.4	9.4	7.9	5.9	4.5	12.7	6.6	3.2	7.7	8.0		6.9	4.0		
CIS 101	16.1	16.6	17.1	16.6	15.2	15.2	15.8	15.4	14.6	14.7	15.8	15.0	14.1	15.2		14.7	15.9
CIS 102	6.5	14.9	17.7	11.1	5.8	7.4	11.1	7.2	2.1			2.1					8.6
CIS 104					12.3	11.3	11.6	11.7									11.7
CIS 106	10.1	10.1	10.1	10.1	10.5	9.6	9.6	9.9									10.0
CIS 107	10.5	8.2	9.6	9.4	9.1	9.1	10.1	9.4									9.4
CIS 108	13.7	13.1		13.4	17.1	8.3	15.4	13.6									13.5
CIS 120	5.9	7.9	8.6	7.1	5.5	7.2	13.3	7.3	5.1	10.8		8.9	4.9			4.9	7.3
CIS 121	9.3	8.5	9.6	9.0	7.5	7.8	8.1	7.8		8.2		8.2					8.5
CIS 124	8.9	9.4	11.6	9.6	7.2	7.6	15.0	8.3	9.5	9.4	5.3	8.7	5.8	12.5		8.0	8.9
CIS 125	7.6	8.4	7.6	7.9	8.1	7.5	10.5	8.3	6.1	4.7	6.7	5.7	4.9	6.7		5.5	7.4
CIS 130	6.9	6.8	11.5	7.6	5.7	8.6	3.9	6.1									6.8
CIS 131	6.6	5.3	10.7	6.9	3.7	7.8	5.3	5.1									6.2
CIS 134		13.6		13.6		10.5		10.5									12.0

Attachment B



Agenda Item Details

Meeting Nov 16, 2011 - Board of Trustees Regular Meeting, 6:00 P.M.
 Category 8. ACADEMIC SERVICES
 Subject 8.1 Resolution No. 15175: Major, Certificate, Course Additions and Deletions
 Type Action
 Fiscal Impact No
 Recommended Action Approve

WHEREAS, new programs, deleted programs and new courses within the programs have been approved by the Curriculum Committee and instructional administration, and satisfy all applicable requirements of Title 5 regulations. All factors, taken as a whole, support the establishment and maintenance of the proposed instructional programs and courses;

BE IT RESOLVED that the Board approves the recommendation of the Curriculum Committee (09/15/11) and the Academic Senate (11/02/11), with the consent of the Superintendent/President, as follows:

New Credit Courses

162 – Cisco CCNA Discovery 1: Networking for Home and Small Businesses (4)
 163 – Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP (4)
 CIS 164 – Cisco CCNA Discovery 3: Intro Routing/Switching in the Enterprise (4)
 CIS 165 – Cisco CCNA Discovery 4: Designing & Supporting Computer Networks (4)
 MATH 061 – Basic Mathematics (3)
 MATH 071 – Pre-algebra (3)
 MATH 081 – Beginning Algebra (4)
 MATH 091 – Intermediate Algebra (5)
 PE 209 – Introduction to Physical Education (3)
 PE 219 – Introduction to Athletic Training (3)

New Majors and Certificates

Cisco CCNA Discovery Major and Certificate

[091511 - Curriculum Committee - CISCO Major and Certificate.pdf \(185 KB\)](#)

Motion & Voting

Discussion - wanted to get information regarding the separation of the math courses. Eric Lehtonen spoke as to the reasons for the changes and the separation and (gave a handout - NEED THAT). Students perform poorly from Math 90 to higher level math and even more so than high school students. He stated this is an investment. average of sample is 15 and proposed 15.

Motion by Rudy Cardenas, second by Louis Wong.

Final Resolution: Motion Carries

Yes: Rudy Cardenas, Romualdo Medina, Karla Sigmond, Steve Taylor, Louis Wong

Attachment C

Mission Statement

The mission of Imperial Valley College is to foster excellence in education that challenges students of every background to develop their intellect, character, and abilities; to assist students in achieving their educational and career goals; and to be responsive to the greater community.

Attachment D

PROGRAM OF STUDY

Cisco CCNA Discovery MAJOR - A.S.

This Cisco CCNA Discovery program provides general networking theory, practical experience, soft-skills development, and opportunities for career exploration. It teaches networking based on application, covering networking concepts within the context of network environments students may encounter in their daily lives – from small office and home office (SOHO) networking to more complex enterprise and theoretical networking models later in the curriculum. The program prepares students for two different Cisco certification exams. After completing the program, students will be prepared to take the industry-standard Cisco CCNA certification exam. In addition, students may opt to take the CCENT certification as a first step toward earning the CCNA certification. CCENT certifies the practical skills required for entry-level information and communication technology skills and demonstrates a student's aptitude and competence to work in an environment that features Cisco networking devices and software. ALL REQUIRED COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A GRADE OF "C" OR BETTER.

Program Learning Outcomes

1. Flash-based interactive activities, videos, games, and quizzes address a variety of learning styles and help stimulate learning and increase knowledge retention. Hands-on labs and Packet Tracer simulation-based learning activities help develop critical thinking and complex problem solving skills. Case studies provide critical and strategic thinking scenarios to help students develop soft skills.
Students learn the basics of routing, switching, and advanced technologies to prepare for Cisco CCENT and CCNA certifications and entry-level networking careers. Student learn to think critically, problem solve, collaborate, and apply skills in real world situations. Students analyze business objectives, plan timelines and resources, and deliver customer presentations.
2. Flash-based interactive activities, videos, games, and quizzes address a variety of learning styles and help stimulate learning and increase knowledge retention. Hands-on labs and Packet Tracer simulation-based learning activities help develop critical thinking and complex problem solving skills. Case studies provide critical and strategic thinking scenarios to help students develop soft skills.
Students learn the basics of routing, switching, and advanced technologies to prepare for Cisco CCENT and CCNA certifications and entry-level networking careers. Student learn to think critically, problem solve, collaborate, and apply skills in real world situations. Students analyze business objectives, plan timelines and resources, and deliver customer presentations

Career Opportunities

The Cisco CCNA Discovery curriculum is primarily designed for students who are seeking entry-level information and communication technology skills for positions such as network administrator, network engineer, network technician, computer technicians, network installer, and help desk technician.

Twenty-two to twenty-five (22 - 25) units required for the major

I. Required courses for the major

CIS 160	CISCO IT Essentials: Hardware and Software	4
CIS 162	Cisco CCNA Discovery 1: Networking for Home and Small Businesses	4
CIS 163	Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP	4
CIS 164	Cisco CCNA Discovery 3: Intro Routing/Switching in the Enterprise	4
CIS 165	Cisco CCNA Discovery 4: Designing & Supporting Computer Networks	4
WE 201	Employment Readiness	1
WE 220	Internship	1 - 4

Total Units

22 - 25

PID 119

Attachment E

DEVELOPMENT CRITERIA NARRATIVE & DOCUMENTATION

Attach a document that describes the development of the proposed program, addressing the five criteria as listed below. **Number** the sections of the narrative to match the lists below. If appropriate, you may note that a section is "not applicable" but **do not re-number** the sections. Provide documentation in the form of attachments as indicated.

Criteria A. Appropriateness to Mission

1. Statement of Program Goals and Objectives
2. Catalog Description
3. Program Requirements
4. Background and Rationale

Criteria B. Need

5. Enrollment and Completer Projections
6. Place of Program in Curriculum/Similar Programs
7. Similar Programs at Other Colleges in Service Area
8. Labor Market Information & Analysis (CTE only)
9. Employer Survey (CTE only)
10. Explanation of Employer Relationship (CTE only)
11. List of Members of Advisory Committee (CTE only)
12. Recommendations of Advisory Committee (CTE only)

Attachment: Labor / Job Market Data (CTE only)

Attachment: Employer Survey (CTE only)

Attachment: Minutes of Key Meetings

Criteria C. Curriculum Standards

13. Display of Proposed Sequence
14. Transfer Documentation (if applicable)

Attachment: Outlines of Record for Required Courses should be separately attached to each course

Attachment: Transfer Documentation (if applicable)

Criteria D. Adequate Resources

15. Library and/or Learning Resources Plan
16. Facilities and Equipment Plan
17. Financial Support Plan
18. Faculty Qualifications and Availability

Criteria E. Compliance

19. Based on model curriculum (if applicable)
20. Licensing or Accreditation Standards
21. Student Selection and Fees

Application Date
June, 2011



California Community Colleges

NEW CREDIT PROGRAM

<u>Cisco CCNA Discovery</u> PROPOSED PROGRAM TITLE	Valerie Rodgers CONTACT PERSON
<u>Imperial Valley College</u> COLLEGE	Business Department Chair TITLE
<u>Imperial Community College</u> DISTRICT	760-355-6439 PHONE NUMBER
<u>August 2012</u> ROJECTED PROGRAM START DATE	valerie.rogers@imperial.edu E-MAIL ADDRESS
GOAL(S) OF PROGRAM: <input checked="" type="checkbox"/> CAREER TECHNICAL EDUCATION (CTE) <input checked="" type="checkbox"/> TRANSFER <input checked="" type="checkbox"/> OTHER	
TYPE OF PROGRAM (SELECT ONLY ONE): <input type="checkbox"/> A.A. DEGREE <input checked="" type="checkbox"/> A.S. DEGREE <input type="checkbox"/> AA-T DEGREE (for transfer)* <input type="checkbox"/> AS-T DEGREE (for transfer)* CERTIFICATE OF ACHIEVEMENT: <input checked="" type="checkbox"/> 18+ semester (or 27+ quarter) units <input type="checkbox"/> 12-18 semester (or 18-27 quarter) units	

* The AA-T and AS-T degrees fulfill the requirements of California Education Code sections 66745-66749, also known as the Student Transfer Achievement Reform Act. See special instructions provided here.

PLANNING SUMMARY

Recommended T.O.P. Code	0708	Estimated FTE Faculty Workload	2.3
Units for Degree Major or Area of Emphasis	22-25	Number of New Faculty Positions	2 part time .6 FTE each
Total Units for Degree	60	Est. Cost, New Equipment	0
Required Units-Certificate	22-25	Cost of New/Remodeled Facility	0
Projected Annual Completers	3	Est. Cost, Library Acquisitions	0
Projected Net Annual Labor Demand (CTE)	14	When will this program undergo review as part of college's Program Evaluation Plan?	Month August Year 2013

Attachments required for this form:

- *Required signature page -- Please retain the original signature page for your records and upload a scan of the signature page as an attachment.*
- *Development Criteria Narrative & Documentation (with all attachments):*
 - *Labor/Job Market DATA (CTE only)*
See #8

LMI:

<http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSResults.asp?selectdarea=Imperial+County&selectedindex=13&menuChoice=localAreaPro&state=true&geogArea=0604000025&countyName=>

Centers of Excellence: <http://www.coeccc.net/>

- *Employer Survey (CTE only) See #9*
- *Minutes of Key Meetings (See Attached)*
- *Outlines of Record for all Required Courses (See Attached)*
- *Transfer Documentation (if applicable) (n/a)*

REQUIRED SIGNATURES

Proposed Program Title Cisco CCNA Discovery College Imperial Valley College

LIBRARY AND LEARNING RESOURCES

Library and learning resources needed to fulfill the objectives of the program are currently available or are adequately budgeted for.

<u>6.7.11</u>	<u>Taylor Ruhl</u>	Taylor Ruhl
DATE	SIGNATURE, CHIEF LIBRARIAN/LEARNING RESOURCES MANAGER	TYPED OR PRINTED NAME

CAREER TECHNICAL EDUCATION ONLY:

Program fulfills the requirements of employers in the occupation, provides students with appropriate occupational competencies, and meets any relevant professional or licensing standards.

<u>6/6/11</u>	<u>Efrain Silva</u>	Efrain Silva
DATE	SIGNATURE, ADMINISTRATOR OF CTE	TYPED OR PRINTED NAME
<u>6-7-11</u>	<u>Michael Carr</u>	Michael Carr
DATE	SIGNATURE, CHAIR, CTE ADVISORY COMMITTEE	TYPED OR PRINTED NAME
Program was recommended for approval by Regional Occupational Consortium on <u>11/18/11</u> (date).		
<u>11/18/11</u>	<u>Albert J. Taccione</u>	Albert J. Taccione
DATE	SIGNATURE, CHAIR, REGIONAL CONSORTIUM	TYPED OR PRINTED NAME

LOCAL CURRICULUM APPROVAL

Program and courses within the program have been approved by the curriculum committee and instructional administration, and satisfy all applicable requirements of Title 5 regulations.

<u>12-8-2011</u>	<u>Kathy Berry</u>	Kathy Berry
DATE	SIGNATURE, CHAIR, CURRICULUM COMMITTEE	TYPED OR PRINTED NAME
<u>12.4.11</u>	<u>Carol E. Lee</u>	Carol Lee
DATE	SIGNATURE, ARTICULATION OFFICER	TYPED OR PRINTED NAME
<u>12-8-2011</u>	<u>Kathy Berry</u>	Kathy Berry
DATE	SIGNATURE, CHIEF INSTRUCTIONAL OFFICER	TYPED OR PRINTED NAME
<u>12-15-2011</u>	<u>Eric Lehtonen</u>	Eric Lehtonen
DATE	SIGNATURE, PRESIDENT, ACADEMIC SENATE	TYPED OR PRINTED NAME

COLLEGE PRESIDENT

All provisions of Title 5, Chapter 6 have been considered. The college is prepared to support establishment and maintenance of the proposed instructional program.

<u>1-3-12</u>	<u>Dr. Victor Jaime</u>	Dr. Victor Jaime
DATE	SIGNATURE, PRESIDENT OF THE COLLEGE	TYPED OR PRINTED NAME

DISTRICT APPROVAL

On 11/16/11 (date), the governing board of the Imperial Community College District approved the instructional program attached to this application.

<u>1-3-12</u>	<u>Dr. Victor Jaime</u>	Dr. Victor Jaime
DATE	SIGNATURE, SUPERINTENDENT/CHANCELLOR OF DISTRICT	TYPED OR PRINTED NAME

Please retain the original signature page for your records and upload a scan of the signature page as an attachment.

Criteria A. Appropriateness to Mission

1. Statement of Program Goals and Objectives

This program meets the CCC mission as it is vocational instruction at the lower division level for both younger and older students, including those persons returning to school.

The Cisco CCNA Discovery program helps prepare students for entry-level career opportunities, continuing education, and globally-recognized Cisco certifications. It provides the experience needed to help meet the growing demand for ICT professionals. The Internet is changing life as we know it—bringing new economic and social opportunities to communities throughout the world, and increasing the global demand for information and communication technology (ICT) skills. Innovations such as social networking, cloud computing, e-commerce, web conferencing, and desktop virtualization are changing the way we live, work, play, and learn. These capabilities are all powered by networks, and organizations around the world are experiencing a shortage of qualified ICT candidates to design, install, and manage these networks.

CCNA Discovery provides general networking theory, practical experience, and opportunities for career exploration and soft-skills development. The curriculum emphasizes critical thinking, problem solving, collaboration, and the practical application of skills in a real world environment. All courses include embedded, highly interactive activities that stimulate learning and improve knowledge retention, hands-on labs, simulation-based learning activities, and online assessments.

The goals and objectives of CCNA Discovery are as follows:

- Help students recognize the significant impact of networking on their lives
- Teach students how to build and support a home or small business network with wireless equipment
- Instill a sense of awe in students and encourage them to learn more about how things work and to pursue careers in networking
- Prepare students for entry-level jobs in the industry by employing interactive and engaging instructional approaches that help them understand general theory and gain practical experience
- Teach students the fundamental concepts of networking
- Provide opportunities for extensive hands-on interaction with PC and networking equipment to prepare students for careers and certification exams
- Establish the relevancy of networking in our everyday lives

Upon completion of the courses, the successful student will have acquired new skills, knowledge, and/or attitudes as demonstrated by being able to perform the following tasks:

IT Essentials Course

- Perform advanced installation of a desktop computer tower; select components based on customer needs and perform preventive maintenance and troubleshooting
- Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting
- Describe and install a network; upgrade components based on customer needs and perform preventive maintenance and troubleshooting
- Upgrade security components based on customer needs and perform preventive maintenance and troubleshooting.
- Apply good communication skills and professional behavior while working with customers.

Networking for Home and Small Businesses Course

- Set up a personal computer system, including the operating system, interface cards, and peripheral devices
- Plan and install a home or small business network and connect it to the Internet
- Verify and troubleshoot network and Internet connectivity

Quick Reference for CCC-501: APPROVAL–NEW CREDIT PROGRAM

- Share resources such as files and printers among multiple computers
- Recognize and mitigate security threats to a home network
- Configure and verify common Internet applications
- Configure basic IP services through a GUI

Working at a Small-to-Medium Business or ISP Course

- Describe the structure of the Internet and how Internet communications occur between hosts
- Install, configure, and troubleshoot Cisco IOS® devices for Internet and server connectivity
- Plan a basic wired infrastructure to support network traffic
- Implement basic WAN connectivity using Telco services
- Demonstrate proper disaster recovery procedures and perform server backups
- Monitor network performance and isolate failures
- Troubleshoot problems using an organized, layered procedure
- Describe the OSI model and the process of encapsulation

Introducing Routing and Switching in the Enterprise Course

- Implement a LAN for an approved network design
- Configure a switch with VLANs and inter-switch communication
- Implement access lists to permit or deny specified traffic
- Implement WAN links
- Configure routing protocols on Cisco devices
- Perform LAN, WAN, and VLAN troubleshooting using a structured methodology and the OSI model

Designing and Supporting Computer Networks Course

- Gather customer requirements
- Design a simple Internetwork using Cisco technology
- Design an IP addressing scheme to meet LAN requirements
- Create an equipment list to meet LAN design requirements
- Create and present a proposal to a customer
- Install and configure a prototype Internetwork
- Obtain and upgrade Cisco IOS Software in Cisco devices

Work Experience Courses

- Develop skills in areas of job search, employer contact, resume writing, and application and interviewing
- Develop job-holding practices.
- Complete at least 63 hours of supervised employment extending classroom-based learning at an on-the-job learning site that relates to the program.

2. Catalog Description

The Cisco CCNA Discovery program provides general networking theory, practical experience, soft-skills development, and opportunities for career exploration. It teaches networking based on application, covering networking concepts within the context of network environments students may encounter in their daily lives -- from small office and home office (SOHO) networking to more complex enterprise and theoretical networking models later in the curriculum. The program prepares students for two different Cisco certification exams. After completing the program, students will be prepared to take the industry-standard Cisco CCNA certification exam. In addition, students may opt to take the CCENT certification as a first step toward earning the CCNA certification. CCENT certifies the practical skills required for entry-level information and communication technology skills and demonstrates a student's aptitude and competence to work in an environment that features Cisco networking devices and software.

The Cisco CCNA Discovery curriculum is primarily designed for students who are seeking entry-level information and communication technology skills for positions such as network administrator, network engineer, network technician, computer technicians, network installer, and help desk technician.

3. Program Requirements

Twenty-two to twenty-five (22 - 25) units required for the major and/or certificate

Required courses for the major and/or certificate

CIS 160 CISCO IT Essentials: Hardware and Software (4)
CIS 162 Cisco CCNA Discovery 1: Networking for Home and Small Businesses (4)
CIS 163 Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP (4)
CIS 164 Cisco CCNA Discovery 3: Intro Routing/Switching in the Enterprise (4)
CIS 165 Cisco CCNA Discovery 4: Designing & Supporting Computer Networks (4)
WE 201 Employment Readiness (1)
WE 220 Internship (1 - 4)
Total Units 22 - 25

To graduate with an Associate of Science Degree, students must take the major courses and the following institutional/general education requirements:

Institutional Requirements:

- Sixty degree applicable units with a grade point average of 2.0 or better for all degree applicable college work
- American institutions (American government and politics, American history) 6 units
- Health education, 3 units
- Physical education (lifetime exercise science and one activity course) 3 units
- Math competency
- Reading Competency

General Education Requirements in the following areas:

- Language and rationality, 6 units
- Natural science, 3 units
- Humanities, 3 units
- Social and behavioral science, 3 units
- Elective, 3 units

4. Background and Rationale

The CIS department has been in the process of planning the improvement and expansion of the CIS Department curriculum for many years. The goal of securing funds to designate and equip a network lab in order to develop a networking program was written into the 2005 CIS Program Review. The 2010 comprehensive program review completed by the CIS department reiterated that goal and specifically indicated we should move forward with the Cisco curriculum.

On January 15, 2010, administrators and CIS faculty participated in a "Web - Presentation" regarding the possibility of hosting a CISCO Network Training program on campus. On February 4, we met face-to-face with the Cisco Networking Academy team. The District made a commitment to go forward with the program. After that meeting, we

- Identified a lead instructor
- Worked with staff at the new San Diego Community College Cisco Regional Academy which provides instructor training and support to begin the process of meeting requirements to become a Cisco school
- Began the process of securing space and funds for the CCNA equipment
- Visited other colleges with Cisco training .

The concept for a Cisco program was approved by our CIS Advisory Committee in November 2010. The District allocated space for the program and through Perkins funding the infrastructure was developed to prepare the classroom/labs and purchase equipment. The Cisco networking lab was completed in January 2011. The rooms that were remodeled can be used for other classes as well. Perkins funding was approved for instructor training, and the Curriculum Lead attended training for the Cisco IT Essentials course. Thus, we are at the point of curriculum and program approval.

Imperial Valley is an area with some of the highest unemployment and poverty rates in California. The new Cisco CCNA Discovery program will offer much needed training that will give students an opportunity to work in information technology not only in Imperial County but also in the region. No other agency in Imperial County provides this training. Cisco is the world standard for networking; and once students have Cisco certification, they will have the skill to work on any networking configuration.

Criteria B. Need

5. Enrollment and Completer Projections

Number of sections of core courses to be offered annually: 7 sections Year 1; 8 sections Year 2; 8 section Year 3

Course #	Title	Projected Sections Year 1	Projected Sections Year 2	Projected Sections Year 3
CIS 160	IT Essentials	2	2	2
CIS 162	Cisco CCNA Discovery 1: Networking for Home and Small Businesses	1		1
CIS 163	Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP		1	
CIS 164	Cisco CCNA Discovery 3: Introducing Routing and Switching in the Enterprise		1	
CIS 165	Cisco CCNA Discovery 4: Designing and Supporting Computer Networks			1
WE 201	Employment Readiness	2	2	2
WE 220	Internship	2	2	2

Projected annual enrollment: 96

Number of estimated completers per year when program is fully established are 5; and at the end of the fifth year, 15.

6. Place of Program in Curriculum/Similar Programs

There are no similar programs offered at Imperial Valley College. Within the Science, Math, and Engineering Division our program inventory includes approval for a Computer Science Transfer program which provides lower division coursework for advanced degrees in the area of science. Within the Economic and Workforce Development Division, the Computer Information Systems Department includes approval for a CIS Transfer program which also provides the lower division coursework for advanced degrees in the area of business. The inventory also includes the Multimedia and Web Development program, which is an interdisciplinary program that combines technical knowledge with design, communication, and problem solving skills. Students learn how to process information and then make this information available to audiences via electronic media. The new Cisco CCNA Discovery program does not modify or remove any existing program; it improves and expands the CIS Department and provides students the experience needed to help meet the growing demand for skills related to networking. It also gives them the opportunity for career exploration and soft-skills development.

The courses required within the new program are being offered with existing faculty, facilities, and equipment. The facilities and equipment will be shared by other programs in the CIS Department including CIS transfer and Web development courses. Other programs on campus will also use the facilities to offer courses when the computer classroom is not in use for the Cisco program. In addition, it will be available as a training facility for faculty and staff when not in use as a classroom.

7. Similar Programs at Other Colleges in Service Area

Imperial Valley College is the only community college serving the Imperial County. No other community college is within commuting distance; the closest is College of the Desert, which is 90 miles away. San Diego State University, Imperial Valley Campus, offers upper division coursework only.

8. Labor Market Information & Analysis (CTE only)

LMI: According to LMI information as of February, 2011, for the El Centro Metropolitan Statistical Area (Imperial County), computer and mathematical occupations are projected to have an average of 5 new jobs and 9 replacement jobs annually from 2008 -2018, an increase of 11%. The link is below:
<http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSResults.asp?selectedarea=Imperial+County&selectedindex=13&menuChoice=localAreaPro&state=true&geogArea=0604000025&countyName=>

The median annual wages Computer and Mathematical Occupations is listed as \$61,967. In a high poverty area, training for a career in this occupation area is a much needed opportunity. The first step for students will be available with the implementation of this program.

Centers of Excellence: More relevant than the LMI information are studies done by the Centers of Excellence (COE). In their Environmental Scan for Information and Communications Technologies (ICT), Phase One Overview, September 2009, San Diego-Imperial Region, San Francisco Bay Region, and Orange County Region at <http://www.coecc.net/> : "The Bureau of Labor Statistics (BLS) estimates that employment in computer systems design and related services will grow nearly 40% and account for almost one-fourth of all new jobs created over the next five years. The scan also indicated that the Computer and Information Technology labor market information has not been adequately studied, despite its importance to the California economy. The report states, "Several factors contribute to the lack of data, including rapidly changing technologies, inconsistent use of occupational titles, wide distribution of ICT occupations across industries and companies, and lack of widespread acceptance of the term ICT." According to the scan, "ICT encompasses all rapidly emerging, evolving and converging computer, software, networking, telecommunications, Internet, programming and information systems technologies."

Employment in ICT occupations spans across industries and firms of all sizes. ICT represents the cutting edge of California's innovation economy." The COE report also states that traditional labor market analysis for ICT occupations across industries is a complicated endeavor because of the factors listed above. Industry representatives indicated that workforce studies which are focused on ICT related job functions, instead of job titles, would be more valuable. The COE, working with the Mid-Pacific ICT Center and its network of industry and community advisors, developed a set of ICT-related job functions as the framework that will guide future research efforts. Training for the Cisco CCNA Discovery program at Imperial Valley College specifically falls within the functions listed below:

Function and Description:

- Deploy and Support End User ICT Devices: Setting up users with the ICT devices they use (computers, phones, PDAs, cell phones, printers, etc.)
- Deploy and Support 3rd Party ICT Applications: Setting up organizations and users with the 3rd party applications they use on their computing and communications devices (Computer operating systems, MS Office, email, database programs, CRM, call center, etc.)
- Deploy and Support Networks and Systems for Communications: Setting up and managing infrastructure and systems for communication between people and devices.
- Deploy and Support Data Storage Systems: Setting up systems to store, backup and restore electronic data, including disaster recovery, SANs, NAS, iSCSI, etc.
- Secure ICT Devices, Systems and Networks: Securing devices, spaces, websites, networks, storage and other ICT systems
- ICT Wiring and Physical Plant: Installing and managing the physical infrastructure over which communications take place, - wires, fiber, poles, towers, conduits, etc.
- Programming and Software Development: Designing and writing programs for computing and communications devices. ICT Technical Writing: Documenting ICT related systems and processes and writing about activities and developments in the ICT field.
- ICT-Related Technical Sales: Developing customer relationships and solutions.
- ICT Systems Analysis and Design: Collecting requirements, understanding solution elements and their constraints and designing systems and processes to meet needs.

In Phase Two: Industry Outlook for Educators, September 2010, the Centers for Excellence conducted an environmental scan for Information and Communications Technologies in California that provides analysis of the size and scope of the ICT sector in California and its potential for growth. More than 600 employers from across the state were surveyed by the Centers of Excellence to collect primary data about ICT in the workplace. In addition, hundreds of research hours were allocated to the collection and analysis of secondary data for this report. The research indicates that ICT is a significant sector in the California economy. Findings include:

- ICT occupations and firms are expected to outpace the general economy in two-year job growth
- ICT firms employ approximately 6% of all private sector workers in California (the 12th largest by sector)
- ICT firms pay over 10% of all private sector wages (3rd in state)
- ICT firms had sales revenues of \$173 billion (6th largest in state)
- ICT occupations across firms represent approximately 5% of all workers in the state (ranking ICT 8th among all occupational classifications)
- ICT occupations pay a median wage of over \$35 per hour, which is 41% higher than the median for all jobs in the state
- A majority of employers across sectors noted that ICT is strategically important to their organizations and that ICT is growing in importance for their employees.

The report states that these findings illustrate that by using the ICT framework to collect economic and labor market data, ICT is larger and more strategically important to California than previously realized. Though people intuitively know that ICT is an important driver of the state's economy, the data indicate that ICT is a top-ten sector for its industries' sales revenue, wages, and employment. ICT is also a top-ten sector for its

occupational size and wages paid across sectors in the state. Employers also noted their reliance on ICT and desire for more structure in ICT strategic planning, education, and training.

A major finding of the primary research conducted for this report is that ICT firms in California anticipate 8.5% employment growth over the next two years – despite flat to negative job growth anticipated for non-ICT firms. However, even though non-ICT firms expect flat job growth, they expect a 3.7% increase in ICT jobs at their firms over the same period.

This report clearly indicates that there are strong ICT job and career prospects for students with advanced training and degrees and for **applied technologists without advanced degrees**. In addition, about half of the employers surveyed reported difficulty recruiting ICT workers with the appropriate skills.

The report states that California's community colleges should use the information in this report to develop and implement strategic plans to align education and training programs to the ICT framework in order to prepare students for employment in these vibrant fields. Colleges should seek assistance from their local employer community and from organizations such as MPICT to assist them in developing appropriate programs to meet the needs of the 21st century ICT workforce

Cisco: As we have progressed in the development of the Cisco CCNA Discovery program, we have been working with Cisco representatives. They provided us with the information below, including the California ICT Job Projections for California, Cisco Networking Academy Impact information, and the California Cisco Academy Map. The ICT job projection information is dated May, 2009, and comes from the California Employment Development Department, Bureau of Labor Statistics. It is projected that Network systems and Data Communications Analysts will increase 50% from 2008 to 2018. All other ICT occupations also have a projected increase. The second chart shows the impact of Cisco Networking Academies in California and the third chart shows Cisco active academies throughout California.

ICT Job Projections: California

California Occupation Projections	Employment		Change		Average Annual Openings	Occupational Employment as of May 2009 ²
	2008	2018	#	%		
Computer Support Specialists	64,100	71,600	7,400	11.5	2,510	60,730
Computer Systems Analysts	59,700	68,300	8,600	14.4	2,140	54,560
Network and Computer Systems Administrators	37,800	44,500	6,700	17.7	1,300	36,040
Network Systems and Data Communications Analysts	35,000	52,600	17,600	50.3	2,390	27,140
Computer and Information Systems Managers	41,200	47,200	6,000	14.6	1,270	38,500

Source: California Employment Development Department, <http://www.labormarketinfo.edd.ca.gov/?pageid=135>
²Department of Labor, Bureau of Labor Statistics, May 2009 State Occupational Employment and Wage Estimates, <http://stat.bls.gov/oes/current/oes99001.htm>



Cisco Networking Academy Impact: California

Students	15,836
Female students	13%
Distinct cumulative students (successfully completing at least one course)	130,598
Instructors	297
Academies	168

Education level (students/academies at more than one education level are counted proportionately)	Secondary Schools	Community Colleges	Universities	Other ²
Students	25%	59%	7%	10%
Academies	50%	37%	7%	6%

Curricula ³ (students/academies that take/teach multiple curricula are counted more than once)	ITE	CCNA 1, 2	CCNA 3, 4	Advanced Technologies / Other ⁴
Students	29%	72%	23%	6%
Academies	50%	67%	50%	21%

In-kind contribution value ⁵ (est. cumulative value to academies, including donations and discounts)	\$ 47,684,159
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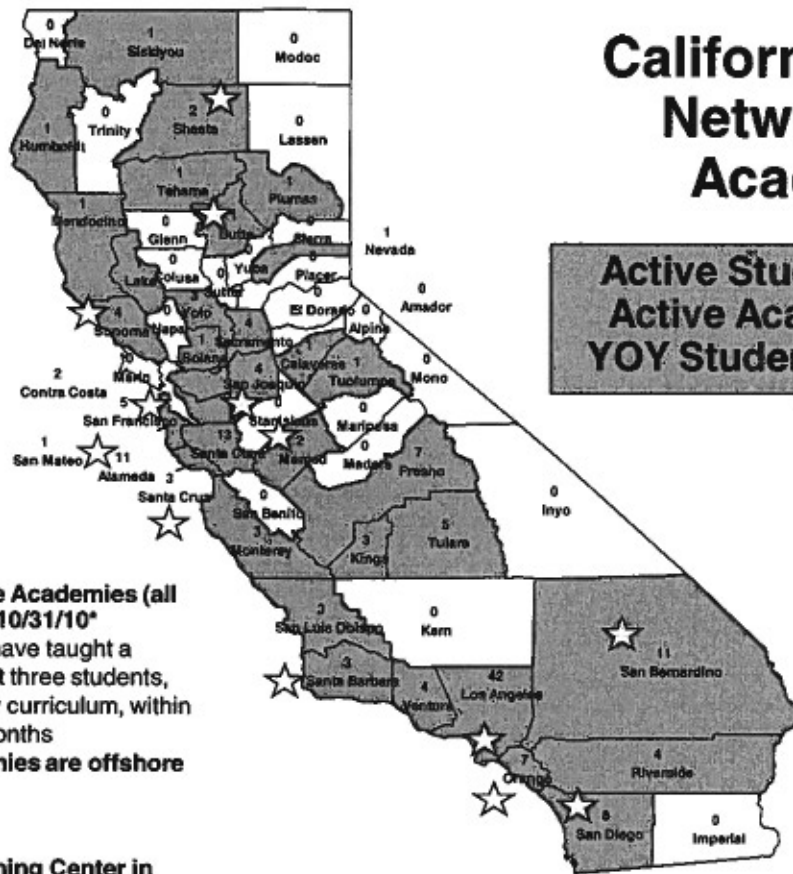
¹Source: Quarterly Metrics, October 2010

²Includes community-based organizations, middle schools, military, nontraditional educational settings, and post-graduate institutions

³Source: MRE report 4415P51, November 2010

⁴Includes CCNA Security, CCNP, Security, Wireless, IP Telephony, Java, UNIX and Panduit Network Infrastructure Essentials (PNE)

⁵Source: MRE report 4470, November 2010



California Cisco Networking Academy

Active Students 15,836
Active Academies 168
YOY Student Growth 7%

California Active Academies (all curricula) as of 10/31/10*
 Academies that have taught a class with at least three students, or adopted a new curriculum, within the last twelve months
NOTE: 3 academies are offshore (Japan)

★ Designates Training Center in County

Source: Quarterly Metrics, October 2010

Wall Street Journal: In addition, technology-job growth and increased IT hiring is helping California deal with its budget deficit. About 91,000 jobs were added in the first quarter of this year, which beats last year's overall number, and the employment trend could wipe \$6 billion from the state's \$15 billion deficit, a state official estimated. Full article in the Wall Street Journal here:
http://online.wsj.com/article/SB10001424052748703864204576311373667322428.html?mod=dist_smartbrief

9. Employer Survey (CTE only)

When the Cisco CCNA Discovery program was being developed, several employers were contacted, including the City of El Centro, the Imperial Irrigation District, Imperial County Office of Education, and the County of Imperial. Department faculty also worked with the Information Technology Department staff at Imperial Valley College. These public agencies are all large employers in Imperial County. In addition, the program had the approval of the CIS Advisory Committee. These employers believed students with these skills would be of value in their organizations as well as in Imperial County as a whole. They indicated that they found it very difficult to find applicants with these types of skills, and students with these skills would have an edge when applying for jobs. They also indicated the program would be valuable to current employees who wish to upgrade their skills. Finally, they indicated that currently agencies must send employees out of the county for this type of training.

Based on our discussions with employers in Imperial County, we believe it is a contribution to our area to provide classes of this type. Because we are the only California Community College within 100 miles, it is unrealistic for our students to travel to other community colleges to get the networking skills that they need. Without access, our students will get left out. For example, currently in Imperial County, the following positions are being advertised:

Best Buy, Geek Squad Counter Intelligence Agent - Computer Tech Job
Time Warner: Field Service Technician Trainee, computer networking coursework preferred
Department of Corrections and Rehabilitation, Information Systems Analyst
Northrop Grumman, Systems Engineer positions to support a Regional Network Operations Security Center

We are requesting that this information from local employers and the job listing information combined with LMI data for ICT jobs, the COA ICT Environmental Scans, the Cisco ICT job projections for California, and the Wall Street Journal article will be accepted as evidence that there is a need for the this program in our community and in our region.

10. Explanation of Employer Relationship (CTE only)

n/a

11. List of Members of Advisory Committee (CTE only)

IMPERIAL VALLEY COLLEGE CIS ADVISORY COMMITTEE MEMBERS

Industry Representatives:

Angel Marcial, Portfolio Manager, IT Department, IID
Maribel Garcia, Supervisor Energy Applications Support, IT Department, IID
Susan Moler, Information and Technical Services, County of Imperial
Aaron Popejoy, Creative Director/Operations Manager, Conveyor Group
Omar Ramos, Webmaster, Imperial Valley College
Cristobal Rodriguez, Technical Services, ICOE
Michael Carr, Information Systems Manager, City of El Centro/Owner-Operator Computer Doctor

Student Representatives:

Kayla Garcia
Matthew Thale

Counselor:

Janeen Kalin, Counselor, Imperial Valley College

CIS Faculty/Staff

Tom Paine, Professor of CIS
Walid Ghanim, Professor of CIS
Andres Martinez, Instructional Media Designer
Val Rodgers, Business Department Chair
Efrain Silva, Dean of Economic and Workforce Development
Maria Sell, Recording Secretary

12. Recommendations of Advisory Committee (CTE only)

At the Computer Information Systems Advisory Committee meeting on November 9, 2010, there was general agreement that a Cisco Academy would benefit the community. At their meeting on May 24, 2011, the Cisco curriculum was approved. Minutes are attached and excerpts are below:

November 9, 2010 Excerpt

Cisco Academy

Tom Paine and Val Rodgers discussed plans to implement a Cisco Academy at IVC. Mrs. Rodgers discussed with the group the progress made to implement a Cisco Academy at IVC during the last two semesters and asked for opinions regarding the need for Cisco training.

Ms. Garcia indicated that currently all IID technicians are Cisco certified; but when training is needed they have to send employees Los Angeles. She indicated that having the training nearby would be beneficial for future employees. Ms. Moler reiterated the fact that her employees also have to travel out of the county to get Cisco certified.

Mr. Carr added that most local companies have to contract out to install networking systems. However, when problems occur such as a virus, it is up to local employees to deal with. It would be more cost effective to have someone in-house who is able to respond in a timely manner. He also stated that once employees have the knowledge base for Cisco, they can work on all other networks.

In response to questions, Mrs. Rodgers indicated the Cisco Academy courses should begin in 2011-12.

Mr. Rodriguez asked what the price would be for the Cisco Academy. Mrs. Rodgers stated that students pay a per unit fee, which is currently \$26. Mr. Carr said that would be quite a savings since it costs \$1,800 currently to send employees to a five-day Cisco Academy, which doesn't include travel expenses and lost production.

There was general agreement that a Cisco Academy would benefit the community.

May 24, 2011, Excerpt

Approval of New Cisco CCNA Discovery Curriculum

The committee reviewed the new Cisco CCNA curriculum, including courses, major, and certificate.

Mr. Marcial asked about the prerequisites for the program. Mrs. Rodgers informed the committee that students would be required to take CIS 101 Introduction to information Systems as a prerequisite to CIS 160 IT Essentials, the first required course in the program. Students would then take the courses in sequence, each being a prerequisite for the next. The sequence is as follows:

*CIS 160 CISCO IT Essentials: Hardware and Software
CIS 162 Cisco CCNA Discovery 1: Networking for Home and Small Businesses
CIS 163 Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP*

*CIS 164 Cisco CCNA Discovery 3: Intro Routing/Switching in the Enterprise
CIS 165 Cisco CCNA Discovery 4: Designing & Supporting Computer Networks (4)*

Mrs. Rodgers informed the committee that Work Experience courses are also required for the program. It will be recommended that the work experiences courses be taken during the last semester.

Mr. Carr asked if the program would be offered as both a certificate and a major. Mrs. Rodgers indicated that students will be able to apply for both. Mr. Carr told the committee that he thought students might not know the difference between an IVC certificate and a Cisco certification. Mrs. Rodgers indicated that students will be informed of the difference through their counselors. Once they have met the requirements for the certificate, they will be able to apply for and take the test for the Cisco certification.

Mr. Marcial inquired about CIS 104, Intro to Telecommunications, and how that course relates to the Cisco program. Mrs. Rodgers stated that as CIS 160 IT Essentials is offered in the curriculum, the CIS 104 Telecommunications course will be evaluated for relevance.

M/S (Michael Carr/Maribel Garcia) to approve the new Cisco curriculum. Motion carried.

Attachment: Labor / Job Market Data (CTE only)

See #8 above.

Attachment: Employer Survey (CTE only)

See #9 above.

Attachment: Minutes of Key Meetings

CIS Advisory Committee Meeting November 9, 2010
 CIS Advisory Committee Meeting May 24, 2011
 Curriculum Committee Meeting, Date Pending
 Academic Senate Meeting, Date Pending
 Board Meeting, Date Pending

Criteria C. Curriculum Standards

13. Display of Proposed Sequence

Courses listed are required courses for the major and/or certificate. Courses must be taken in sequence; thus it will take five semesters initially for students to progress through the program.

Fall Term Sem 1	Spring Term Sem 2	Fall Term Sem 3	Spring Term Sem 4	Fall Term Sem 5	Spring Term Sem 6
CIS 160	CIS 160	CIS 160	CIS 160	CIS 160	CIS 160
	CIS162			CIS 162	
		CIS 163			CIS 163
			CIS 164		
				CIS 165	
WE 201	WE 201	WE 201	WE 201	WE 201	WE 201
WE 220	WE 220	WE 220	WE 220	WE 220	WE 220

14. Transfer Documentation (if applicable): n/a

Attachment: Outlines of Record for Required Courses should be separately attached for each course

CIS 160 CISCO IT Essentials: Hardware and Software 4
CIS 162 Cisco CCNA Discovery 1: Networking for Home and Small Businesses 4
CIS 163 Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP 4
CIS 164 Cisco CCNA Discovery 3: Intro Routing/Switching in the Enterprise 4
CIS 165 Cisco CCNA Discovery 4: Designing & Supporting Computer Networks 4
WE 201 Employment Readiness 1
WE 220 Internship 1 – 4

Attachment: Transfer Documentation (if applicable): n/a

Criteria D. Adequate Resources

15. Library and/or Learning Resources Plan

Prior to the program approval at Imperial Valley College, CIS faculty worked with the Assistant Librarian to review resources. It was determined that no new resources would be needed at the current time, including resources in computer labs; however library staff would remain responsive to the program as we go forward. In addition, as part of the curriculum process, the Assistant Librarian and the Dean of Learning Services and Instructional Technology reviewed the curriculum before approval.

16. Facilities and Equipment Plan

No new facilities or equipment is required.

17. Financial Support Plan

District financial support will be required to hire new adjunct instructors for the program. The District has made a commitment for these resources. In addition, the District has committee to reassigned time for a lead instructor. The classroom/lab infrastructure is in place and both District and Perkins CTE funding has been approved for the maintenance of the program.

18. Faculty Qualifications and Availability

As the Cisco program has been developed, CIS faculty have gone through the processes of developing the courses, investigating equipment needs, meeting with vendors, getting training, and designing a networking lab. Before the courses are taught, each instructor must be oriented and trained. Cisco recommends the District have two Cisco qualified instructors as we progress with the training. Certification of instructors prior to teaching the courses is important because it gives instructors knowledge of the Cisco program from a student perspective. San Diego Community College District, which is 120 miles away, has recently opened a regional center and we have been working with their staff to receive training and support. One instructor has already received training and we have secured the funding to send another instructor during the summer of 2011.

We are aware that putting the program in place will involve communications with Cisco at many levels, travel to San Diego, and training time. Once the program is up and running, the teaching load will not be able to be handled by current staff and we will need to hire new adjunct instructors; therefore, we are developing an adjunct pool of instructors with practical experience.

Currently, there is a full time instructor who has taken the lead. We have negotiated three ongoing hours of reassigned time for this instructor as a Curriculum Lead who would be needed to:

- Monitor the lab facilities to ensure they meet current Cisco requirements
- Maintain our curriculum to meet current Cisco certification requirements (as with any technology, certificate standards change over time)
- Monitor the instructor's credentials to be sure they meet Cisco requirements
- Attend meetings and workshops at our regional center in San Diego
- Collaborate with other academies
- Provide training and/or support for instructors
- Assist in recruiting and scheduling of courses
- Coordinate repairs and maintenance to the classroom and lab equipment

Criteria E. Compliance

19. Based on model curriculum (if applicable): n/a

20. Licensing or Accreditation Standards: n/a

21. Student Selection and Fees: n/a

Attachment F



**IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD**

DIVISION: Economic and Workforce Development

DATE: October 07, 2010

COURSE TITLE: Introduction to Information Systems

COURSE NO.: CIS 101

UNITS: 3

LEC HRS. 54.00

LAB HRS. 0

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

An introductory course designed to teach the basic understanding of computer information systems, survey computer hardware and software, and give the student hands on experience on common business applications. (CSU, UC)

II. A. PREREQUISITES, if any:

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade Only

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Analyze web information sources for relevance and accuracy; and synthesize, evaluate and communicate the results, demonstrating writing competencies at the college level. (ILO1, ILO2, ILO4)
2. Describe the general characteristics of a computer system and identify types of computer hardware and software and explain their functions.(ILO1, ILO2, ILO4)
3. Demonstrate the use of a word processor, spreadsheet, and database application program by completing projects that require students to extend course content to real-world situations and manage and organize files and use data storage devices. (ILO1, ILO2, ILO4)

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. recognize the impact of computers on society.
2. identify and use common types or input/output devices and discuss new technology devices.
3. be able to explain the basic functions of the central processing unit.
4. describe types and functions of operating systems and demonstrate operating system software commands.
5. be able to explain the use of various computer storage media.
6. be able to identify and describe activities involved in designing and developing computer programs.
7. demonstrate knowledge of word processing, spreadsheet and database applications.
8. explain the procedures for system analysis and the steps involved in system design.
9. explain how users transmit data over networks.
10. locate an evaluate resources available on the Internet and use E-Mail.

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX. % OF COURSE
1. Presentation of the impact of computers on society	5.00%

2. Input and output devices and identification of common problems	10.00%
3. Components and functions of the central processing unit.	10.00%
4. Computer operating system software.	10.00%
5. Computer storage media.	10.00%
6. Computer programming language and programming process.	10.00%
7. Word processing, spreadsheet and data base applications.	20.00%
8. System analysis and system design.	5.00%
9. Telecommunications.	10.00%
10. Internet and the World Wide Web.	10.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:

Class Activity

Mid-Term/Final Exam(s)

Objective

Oral Assignments

Problem Solving Exercise

Quizzes

Skill Demonstration

Written Assignments

VIII. INSTRUCTIONAL METHODOLOGY:

Audio Visual

Computer Assisted Instruction

Demonstration

Discussion

Individual Assistance

Lab Activity

Lecture

Simulation/Case Study

Distance Learning

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

Using Excel, design and create a workbook and chart to analyze yearly sales for a company. Use multiple resources to provide a solution to real world tech problems and present solution to class in the form of a brief report, presentation, or discussion.

Reading and Writing:

Evaluate a web site using criteria to determine if the information is credible, reliable, and valuable. Write an evaluation report in Word demonstrating writing competencies at the college level. Research a recent newspaper/magazine/web article on topics related to technology issues/ethics and discuss.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Shelly, Gary B. and Cashman, Thomas J. and Vermaat, Misty E. (2011). *Discovering Computers 2011, Living in a Digital World, Web Enhanced* (Complete/e). Boston, MA Course Technology/Cengage Learning. ISBN: 10: 1-4390-79
Microsoft Office Suite, Microsoft, (2007/e).
Online Companion, Course Technology/Cengage Learning, (2011/e).

Attached Files

SLO's

Attachment G

Prerequisite Skills for CIS 162

Before entering CIS 162 Cisco CCNA Discovery 1: Networking for Home and Small Businesses, the student should be able to:

1.	Define information technology and describe the components of a personal computer.
2.	Protect herself or himself against accidents and injury, protect equipment from damage, protect data from loss, and protect the environment from contamination.
3.	Perform a step-by-step assembly of a desktop computer tower
4.	Explain the purpose of preventive maintenance and identify the elements of the troubleshooting process.
5.	Explain, install, and navigate an operating system; upgrade components based on customer needs and perform preventive maintenance and troubleshooting.
6.	Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting.
7.	Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting.
8.	Describe and install a network; upgrade components based on customer needs and perform preventive maintenance and troubleshooting.
9.	Perform advanced installation of a desktop computer tower; select components based on customer needs and perform preventive maintenance and troubleshooting.
10.	Upgrade security components based on customer needs and perform preventive maintenance and troubleshooting.
11.	Apply good communication skills and professional behavior while working with customers.

Prerequisite course in which these skills are learned:

- 1. CIS 160 IT Essentials: Hardware and Software**

Attachment H

Prerequisite Skills for CIS 163

Before entering CIS 163 Cisco CCNA Discovery 2: Working at a Small-to-Medium Business of ISP, the student should be able to:

1.	Plan and install a home or small business network and connect it to the Internet, sharing resources such as files and printers among multiple computers.
2.	Verify and troubleshoot network and Internet connectivity.
3.	Recognize and mitigate security threats to a home or small business network.
4.	Configure and verify common Internet applications as well as basic IP services through a GUI.
5.	Build the access layer of an Ethernet network, build the distribution layer of a network, and plan and connect a local network.
6.	Configure an integrated AP and wireless client.

Prerequisite course in which these skills are learned:

- 1. CIS 162 Cisco CCNA Discovery 1: Networking for Home and Small Businesses**

Attachment I

Prerequisite Skills for CIS 164

Before entering CIS 164: **Cisco CCNA Discovery 3: Introducing Routing and Switching in the Enterprise**, the student should be able to:

1.	Describe the structure of the Internet and how Internet communications occur between hosts.
2.	Install, configure, and troubleshoot Cisco IOS devices for Internet and server connectivity.
3.	Plan a basic wired infrastructure to support network traffic.
4.	Implement a basic WAN connectivity using Telco services.
5.	Demonstrate proper disaster recovery procedures and perform server backups.
6.	Monitor network performance and isolate failures.
7.	Troubleshoot problems using an organized, layered procedure.
8.	Describe the OSI model and the process of encapsulation.

Prerequisite course in which these skills are learned:

1. **CIS 163, Cisco CCNA Discovery 2: Working at a Small-to-Medium Business or ISP**

Attachment J

Prerequisite Skills for CIS 165

Before entering CIS 165 Designing and Supporting Computer Networks the student should be able to:

1.	Implement a LAN for an approved network design.
2.	Configure a switch with VLANs and inter-switch communication.
3.	Implement access lists to permit or deny specified traffic.
4.	Implement WAN links
5.	Configure routing protocols on Cisco devices.
6.	Perform LAN, WAN, and VLAN troubleshooting using a structured methodology and the OSI model.

Prerequisite course in which these skills are learned:

- 1. CIS 164, Cisco CCNA Discovery 3: Introducing Routing and Switching in the Enterprise,**

Attachment K



**IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD**

DIVISION: Economic and Workforce Development

DATE: October 07, 2010

COURSE TITLE: CISCO IT Essentials: Hardware and Software

COURSE NO.: CIS 160

UNITS: 4

LEC HRS. 54.00

LAB HRS. 54.00

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

This course is the first course in the CISCO Networking Academy and covers the fundamentals of computer hardware and software as well as advanced concepts. Students who complete this course will be able to describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. Students will also be able to connect to the Internet and share resources in a network environment.

II. A. PREREQUISITES, if any:

CIS 101 with a minimum grade of C or better

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade Only

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Diagnose and repair two (2) computer problems. (ILO2)
2. Practice safe work habits. (ILO3)
3. Install and configure an operating system. (ILO2)
4. Select computer components based on customer need and complete the installation of a desktop computer tower.

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Define information technology and describe the components of a personal computer.
2. Protect herself or himself against accidents and injury, protect equipment from damage, protect data from loss, and protect the environment from contamination.
3. Perform a step-by-step assembly of a desktop computer tower
4. Explain the purpose of preventive maintenance and identify the elements of the troubleshooting process.
5. Explain, install, and navigate an operating system; upgrade components based on customer needs and perform preventive maintenance and troubleshooting.
6. Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting.
7. Describe, remove, and replace select components of a laptop; upgrade components based on customer needs and perform preventive maintenance and troubleshooting.
8. Describe and install a network; upgrade components based on customer needs and perform preventive maintenance and troubleshooting.
9. Perform advanced installation of a desktop computer tower; select components based on customer needs and perform preventive maintenance and troubleshooting.
10. Upgrade security components based on customer needs and perform preventive maintenance and troubleshooting.
11. Apply good communication skills and professional behavior while working with customers.

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX. % OF COURSE
Introduction to Personal Computer	2.00%
Safe Lab Procedure and Tool Use	3.00%
Computer Assembly Step-by-Step	25.00%
Basics of Preventive Maintenance and Troubleshooting	12.00%
Operating Systems	15.00%
Laptops and Portable Devices	10.00%
Printers and Scanners	6.00%
Networks	13.00%
Advanced Tower Installation	5.00%
Security	6.00%
Communication Skills	3.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:

Class Activity

Mid-Term/Final Exam(s)

Objective

Oral Assignments

Problem Solving Exercise

Quizzes

Skill Demonstration

Written Assignments

VIII. INSTRUCTIONAL METHODOLOGY:

Discussion

Group Activity

Individual Assistance

Lab Activity

Lecture

Simulation/Case Study

Audio Visual

Demonstration

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

Use CISCO online tools and Packet Tracer tool to understand how networks function and to do network design.

Reading and Writing:

Do research to determine configurations, specifications, and operating parameters. Compare and contrast the viability of building a PC from components versus purchasing a ready made PC.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Cisco (2010). *IT Essentials: PC Hardware and Software* (Fourth/e). Cisco Press.

Cisco. Lab Manual, IT Essentials: PC Hardware and Software. Cisco Press , 10-01-2010.

Cisco. Course Booklet, IT Essentials: PC Hardware and Software, Version 4.1. Cisco Press , 04-01-2010.

Attached Files

Prereq Matrix

SLO's



**IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD**

DIVISION: Economic and Workforce Development

DATE: September 15, 2011

COURSE TITLE: Cisco CCNA Discovery 1: Networking for Home and Small Businesses

COURSE NO.: CIS 162 **UNITS:** 4

LEC HRS. 54.00

LAB HRS. 54.00

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

This course teaches students the skills needed to obtain entry-level home network installer jobs. It also helps students develop some of the skills needed to become network technicians, computer technicians, cable installers, and help desk technicians. It provides a hands-on introduction to networking and the Internet using tools and hardware commonly found in home and small business environments.

II. A. PREREQUISITES, if any:

CIS 160 with a minimum grade of C or better

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade Only

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Plan and install a home or small business network and connect it to the Internet, sharing resources such as files and printers among multiple computers. (ILO1, ILO2, ILO4, ILO5)
2. Verify and troubleshoot network and Internet connectivity. (ILO1, ILO2, ILO4, ILO5)
3. Recognize and mitigate security threats to a home or small business network. (ILO1, ILO2, ILO4, ILO5)
4. Configure and verify common Internet applications as well as basic IP services through a GUI. (ILO1, ILO2, ILO4, ILO5)
5. Build the access layer of an Ethernet network, build the distribution layer of a network, and plan and connect a local network.
6. Configure an integrated AP and wireless client.

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Set up a personal computer system, including the operating system, interface cards, and peripheral devices
2. Plan and install a small network connecting to the Internet
3. Verify and troubleshoot network and Internet connectivity.
4. Share resources such as files and printers among multiple computers
5. Recognize and mitigate security threats to a home network
6. Configure and verify common Internet applications
7. Configure basic IP services through a GUI

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX. % OF COURSE
	10.00%

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Personal Computer Hardware	
Operating Systems	10.00%
Connecting to the Network	10.00%
Connecting to the Internet Through an ISP	10.00%
Network Addressing	10.00%
Network Services	10.00%
Wireless Technologies	10.00%
Basic Security	10.00%
Troubleshooting Your Network	10.00%
Course Summary: Putting It All Together	10.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:

Class Activity

Mid-Term/Final Exam(s)

Objective

Oral Assignments

Problem Solving Exercise

Quizzes

Skill Demonstration

Written Assignments

VIII. INSTRUCTIONAL METHODOLOGY:

Discussion

Group Activity

Individual Assistance

Lab Activity

Lecture

Simulation/Case Study

Audio Visual

Demonstration

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

Submit a plan for installation of a small business network and share it with class. Research ways to verify and troubleshoot network and Internet connectivity and submit an outline of steps in the process. Research an information

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technology problem, find solutions, formulate recommendations, and document the process.

Reading and Writing:

Research security threats to a home or small business network and describe ways to mitigate those threats in a report using college level writing standards. Describe in detail how to configure and verify common Internet applications and basic IP services through a GUI. Explain principles of communication and of communication on a local wired network. Describe IP addresses and subnet masks, distinguish between types of IP addresses, and explain how IP addresses are obtained.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Cisco (2011). *Networking for Home and Small Businesses* (v4/e). Cisco.
Simulation Software. Cisco, (2011/e).

Attached Files

Prerequisite Matrix



**IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD**

DIVISION: Economic and Workforce Development

DATE: September 15, 2011

COURSE TITLE: Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP **COURSE NO.:** CIS 163 **UNITS:** 4

LEC HRS. 54.00

LAB HRS. 54.00

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

This course prepares students for jobs as network technicians and helps them develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and remote access, addressing, and security. It also familiarizes students with servers that provide email services, web space, and authenticated access. Students learn about the soft skills required for help desk and customer service positions and receive preparation for certification. Network monitoring and basic troubleshooting skills are taught in context.

II. A. PREREQUISITES, if any:

CIS 162 with a minimum grade of C or better

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade Only

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Describe the structure of the Internet and how Internet communications occur between hosts. (ILO1,ILO2, ILO4, ILO5)
2. Install, configure, and troubleshoot Cisco IOS devices for Internet and server connectivity. (ILO1, ILO2, ILO4, ILO5)
3. Plan a basic wired infrastructure to support network traffic. (ILO1, ILO2, ILO4, ILO5)
4. Implement a basic WAN connectivity using Telco services. (ILO1, ILO2, ILO4, ILO5)
5. Demonstrate proper disaster recovery procedures and perform server backups. (ILO1, ILO2, ILO4, ILO5)
6. Monitor network performance and isolate failures. (ILO1, ILO2, ILO4, ILO5)
7. Troubleshoot problems using an organized, layered procedure. (ILO1, ILO2, ILO4, ILO5)
8. Describe the OSI model and the process of encapsulation. (ILO1, ILO2, ILO4, ILO5)

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Describe the structure of the Internet and how Internet communications occur between hosts.
2. Install, configure, and troubleshoot Cisco IOS devices for Internet and server connectivity.
3. Plan a basic wired infrastructure to support network traffic.
4. Implement a basic WAN connectivity using Telco services.
5. Demonstrate proper disaster recovery procedures and perform server backups.
6. Monitor network performance and isolate failures.
7. Troubleshoot problems using an organized, layered procedure.
8. Describe the OSI model and the process of encapsulation.

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	
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	APPROX. % OF COURSE
The Internet and Its Uses	10.00%
Help Desk	10.00%
Planning a Network Upgrade	10.00%
Planning the Addressing Structure	10.00%
Configuring Network Devices	10.00%
Routing	10.00%
ISP Services	10.00%
ISP Responsibility	10.00%
Preparing for Certification	10.00%
Course Summary: Putting It All Together	10.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:

Class Activity

Mid-Term/Final Exam(s)

Objective

Oral Assignments

Problem Solving Exercise

Quizzes

Skill Demonstration

Written Assignments

VIII. INSTRUCTIONAL METHODOLOGY:

Discussion

Group Activity

Individual Assistance

Lab Activity

Lecture

Simulation/Case Study

Audio Visual

Demonstration

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

Research the structure of the Internet and how Internet communications occur between hosts and create a class presentation. As part of a group effort, inform the class of proper disaster recovery procedures and how to perform server backups.

Reading and Writing:

Research the OSI model and the process of encapsulation, and create a report using college level writing standards. Submit a plan for a basic wired infrastructure to support network traffic.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Cisco (2011). *Cisco Discovery 2: Working at a Small-to-Medium Business or ISP (v4/e)*. Cisco.
Simulation Software. Cisco, (2011/e).

Attached Files

Prerequisite Matrix



**IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD**

DIVISION: Economic and Workforce Development

DATE: May 02, 2011

COURSE TITLE: Cisco CCNA Discovery 3: Intro Routing/Switching in the Enterprise

COURSE NO.: CIS 164 **UNITS:** 4

LEC HRS. 54.00

LAB HRS. 54.00

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

This course familiarizes students with the equipment applications and protocols installed in enterprise networks with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Students benefit from hands-on exercises, including configuration, installation, and troubleshooting.

II. A. PREREQUISITES, if any:

CIS 163 with a minimum grade of C or better

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade Only

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Implement a LAN for an approved network design (ILO1, ILO2, ILO4, ILO5)
2. Configure a switch with VLANs and inter-switch communication (ILO1, ILO2, ILO4, ILO5)
3. Implement access lists to permit or deny specified traffic (ILO1, ILO2, ILO4, ILO5)
4. Implement WAN links (ILO1, ILO2, ILO4, ILO5)
5. Configure routing protocols on Cisco devices (ILO1, ILO2, ILO4, ILO5)
6. Perform LAN, WAN, and VLAN troubleshooting using a structured methodology and the OSI model (ILO1, ILO2, ILO4, ILO5)

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Implement a LAN for an approved network design
2. Configure a switch with VLANs and inter-switch communication
3. Implement access lists to permit or deny specified traffic
4. Implement WAN links
5. Configure routing protocols on Cisco devices
6. Perform LAN, WAN, and VLAN troubleshooting using a structured methodology and the OSI model

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX. % OF COURSE
Networking in the Enterprise	10.00%
	10.00%

Exploring the Enterprise Network Infrastructure	
Switching in an Enterprise Network	10.00%
Addressing in an Enterprise Network	10.00%
Routing with a Distance Vector Protocol	10.00%
Routing with a Link-State Protocol	10.00%
Implementing Enterprise WAN Links	10.00%
Filtering Traffic Using Access Control Lists	10.00%
Troubleshooting an Enterprise Network	10.00%
Course Summary: Putting It All Together	10.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:

Class Activity

Mid-Term/Final Exam(s)

Objective

Oral Assignments

Problem Solving Exercise

Quizzes

Skill Demonstration

Written Assignments

VIII. INSTRUCTIONAL METHODOLOGY:

Audio Visual

Demonstration

Discussion

Group Activity

Individual Assistance

Lab Activity

Lecture

Simulation/Case Study

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

Compare and contrast approved designs for LAN implementation and be prepared to discuss with class.

Reading and Writing:

Research Cisco routing protocols and create a report using college level writing standards. Be prepared to discuss the

implementation of access lists to permit or deny specified network traffic.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Cisco (2011). *Introducing Routing and Switching in the Enterprise (v4/e)*. Cisco.
Simulation Software, Cisco, (2011/e).

Attached Files

Prerequisite Matrix



**IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD**

DIVISION: Economic and Workforce Development

DATE: May 04, 2011

COURSE TITLE: Cisco CCNA Discovery 4: Designing & Supporting Computer Networks

COURSE NO.: CIS 165 **UNITS:** 4

LEC HRS. 54.00

LAB HRS. 54.00

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

This course introduces students to network design processes using two examples: a large stadium enterprise network and a medium-sized film company network. Students follow a standard design process to expand and upgrade each network, which includes requirements gathering, proof-of-concept, and project management. Lifecycle services, including upgrades, competitive analyses, and system integration, are presented in the context of pre-sale support.

II. A. PREREQUISITES, if any:

CIS 164 with a minimum grade of C or better

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade Only

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Design a simple Internetwork using Cisco technology (ILO1, ILO2, ILO4, ILO5)
2. Design an IP addressing scheme to meet LAN requirements (ILO1, ILO2, ILO4, ILO5)
3. Create an equipment list to meet LAN design requirements (ILO1, ILO2, ILO4, ILO5)
4. Create and present a proposal to a customer (ILO1, ILO2, ILO4, ILO5)

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Gather customer requirements
2. Design a simple Internetwork using Cisco technology
3. Design an IP addressing scheme to meet LAN requirements
4. Create an equipment list to meet LAN design requirements
5. Create and present a proposal to a customer
6. Install and configure a prototype Internetwork
7. Obtain and upgrade Cisco IOS Software in Cisco devices

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX. % OF COURSE
Introducing Network Design Concepts	10.00%
Gathering Network Requirements	10.00%
Characterizing the Existing Network	10.00%
	10.00%

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Identifying Application Impacts of Network Design	
Creating the Network Design	10.00%
Using IP Addressing in the Network Design	10.00%
Prototyping the Campus Network	10.00%
Prototyping the WAN	10.00%
Preparing the Proposal	10.00%
Course Summary: Putting It All Together	10.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:

Class Activity

Mid-Term/Final Exam(s)

Objective

Oral Assignments

Problem Solving Exercise

Quizzes

Skill Demonstration

Written Assignments

VIII. INSTRUCTIONAL METHODOLOGY:

Audio Visual

Demonstration

Discussion

Group Activity

Individual Assistance

Lab Activity

Lecture

Simulation/Case Study

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

As part of a group, prepare a role-playing scenario that demonstrates techniques to use to gather customer requirements, and present the scenario to the class.

Reading and Writing:

Develop a network upgrade proposal and present it to the class. Create a customer proposal, and using a role-playing

scenario, demonstrate to the class how that proposal would be presented.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Cisco (2011). *Designing and Supporting Computer Networks (v4/e)*. Cisco.
Simulation Software. Cisco, (2011/e).

Attached Files

Prerequisite Matrix



IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD

DIVISION: Economic and Workforce Development

DATE: September 15, 2011

COURSE TITLE: Employment Readiness

COURSE NO.: WE 201

UNITS: 1

LEC HRS. 18.00

LAB HRS. 0

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

A course that may be taken as a stand-alone or as a companion course related to WE 210 (Formerly WEGEN81 AC) General Work Experience or WE 220 (Formerly WEOCC 82AD). Skills development in the areas of job search, employer contact, resume writing, applications and cover letter, interviewing techniques, appropriate dress, job-holding practices, and on-sit hob learning objectives. A review of factors relating to or contributing to job success, including motivation, attitude, human relations, leadership, personal, as well as, group of relationship and behavior. This course may be repeated for a total of four units. (CSU)

II. A. PREREQUISITES, if any:

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade or Pass/No Pass

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Identify and accomplish four on-the-job learning objectives for new or expanded learning. (ILO 1, 2, 3, 4)

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Experience orientation, receive their job placement and establish individual job objectives.
2. Demonstrate an understanding of the requirements and expectations of private and public employers.
3. Demonstrate an understanding of the role of motivation on the workplace.
4. Demonstrate an understanding of how attitudes influence job performance.
5. Demonstrate knowledge of the importance of the importance of human relations in the workplace.

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX. % OF COURSE
Job placement	20.00%
Requirements and expectations of private and public employers	20.00%
Motivation in the workplace	20.00%
Job performance	20.00%

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Human relations in the workplace	20.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:**VIII. INSTRUCTIONAL METHODOLOGY:**

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

1. Prepare and type an error-free resume. 2. Assemble an "Employment Preparation" portfolio.

Reading and Writing:

1. Read "Job Hunting Handbook" carefully and complete responses. 2. Write a three-paragraph autobiography.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Dahlstrom (2010). *Job Hunting Handbook* Dahlstrom. ISBN: 9780940712836



IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE
COURSE OUTLINE-OF-RECORD

DIVISION: Economic and Workforce Development

DATE: September 15, 2011

COURSE TITLE: Internship

COURSE NO.: WE 220

UNITS: 1-4

LEC HRS. 0

LAB HRS. 63.00

If cross-referenced, please complete the following

COURSE NO.(s)

COURSE TITLE

I. COURSE/CATALOG DESCRIPTION:

Corequisite: must be taken in conjunction with WE 201 (Formerly WE 80AD). A course that is supervised employment extending classroom-based occupational learning at an on-the-job learning site relating to the students' educational or occupational (major or career) goals. One unit of credit is earned for each 60 hours (3.5 to 13.5 ours a week) of volunteer/unpaid work or 75 hours (4.5 to 17 hours a week) of paid work, with maximum of 4 units per semester. During a regular semester, students must complete a minimum of 7 units, including Work Experience. During the summer session, students must complete one other course in addition to Work Experience. The maximum credits for this course are 16 units. (CSU). (Formerly WEOCC 82AD)

II. A. PREREQUISITES, if any:

B. COREQUISITES, if any:

WE 201

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

Letter Grade or Pass/No Pass

IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Identify and accomplish four on-the-job learning objectives for new or expanded learning. (ILO1, ILO2, ILO3, ILO4)

V. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Perform the required hours and duties in a job placement.
2. Develop a weekly schedule of job placement hours.
3. Apply classroom learning to situations encountered on the job.
4. Assess employer expectations and demonstrate desirable work habits and personal traits for successful job performance and assimilation into company work force.

VI. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX. % OF COURSE
1. Job placement.	25.00%
2. Establish number of weekly placement hours.	25.00%
3. Principles of the workplace (from the coordinating class)	25.00%

4. Job placement work assignments.	25.00%
TOTAL	100%

VII. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:

Other, please identify

Job Performance activities.

VIII. INSTRUCTIONAL METHODOLOGY:

Individual Assistance

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

IX. ASSIGNMENTS:

Out-of-class:

1. Complete and turn in Time Sheets. 2. Add General Work Experience or Internship program experience to resume.

Reading and Writing:

1. Read Site Supervisor's memo and instructions carefully to complete the General Work Experience or Internship worksite requirements. 2. Write four worksite learning objectives.

X. TEXTBOOK(S) AND SUPPLEMENT(S):

Attachment L

**IMPLEMENTATION OF CISCO NETWORKING ACADEMY
PROJECTED DATE FOR COMPLETION: JANUARY 2011**

The curriculum will include the IT Essentials course (which is a computer repair course) and the courses in the CCNA Exploration Academy -- Networking Fundamentals, Routing Protocols and Concepts, LAN Switching and Wireless, and Accessing the WAN.

Timeline:

June 2010	Develop detailed plans for moving Bus Div Lab Develop detailed plans for Remodeling Room 901 as CISCO classroom
Summer 2010	Train/certify lead instructor
August 2010	Develop SPEC course for CISCO IT Essentials (computer repair) to be offered Spring 2011 Develop CISCO curriculum for approval in 2011-2012 IVC Catalog Develop scheduling plan for CISCO Academy
October 2010	Complete remodel 1603 and 1604 to accommodate a student computer lab
November 2010	Complete move of Bus Div Lab to 1600
December 2011	Complete remodel/wiring infrastructure/CISCO equipment setup in Room 901
Spring 2011	Phase in CISCO IT Essentials SPEC course in 901
Summer 2011	Train/certify instructors
Fall 2011/Spring 2012	Phase in CISCO Exploration Academy courses

Project costs were discussed with Rick Webster, Director of Maintenance, Tom Paine, Lead CIS Instructor, and Gordon Bailey, Director of Technical Services. The following cost estimates were determined:

Item	Cost Estimate
CTE Perkins Funding 2010-11:	
CISCO Lab Gear for 901	32,000
Cable Trays/Wiring Infrastructure for 901	20,000
Wiring infrastructure for new space for Bus Div Lab	25,000
Instructor Training	1,000
Total	78,000
CTE Perkins Funding 2011-12	
10 Specialized Work Benches for Repair Class for 901	4,000
26 Chairs or stools for 901	2,600
Projector, screen, and instructor PC	6,000
Instructor Training	5,000
Total	17,000
Will need District funding:	
901 Room Preparation – floor tile, paint	5,000
Room Preparation for new space for Bus Division Lab	5,000
Air Conditioning upgrade, if needed for increased heat load	Unknown

Attachment M

**COMPUTER INFORMATION SYSTEMS
ADVISORY COMMITTEE MEETING**

TUESDAY, NOVEMBER 9, 2010, 3:00 P.M., ROOM 801

A G E N D A

1. Welcome and introductions
2. Election of Committee Chair
3. Review of CIS programs
 - a. Computer Information Systems – Tom Paine/Walid Ghanim
 - b. Multimedia and Web Development – Andres Martinez
4. Approval/Endorsement of CIS programs/Certification that curriculum and programs meet industry needs
5. Recommendation for new Cisco Academy program –Tom Paine/Val Rodgers
6. Other
7. Adjourn

**COMPUTER INFORMATION SYSTEMS
ADVISORY COMMITTEE MEETING**

TUESDAY, NOVEMBER 9, 2010, 3:00 P.M., ROOM 801

MINUTES

ATTENDING:

Industry Representatives:

Maribel Garcia, Supervisor Energy Applications Support, IT Department, IID
Susan Moler, Information and Technical Services Manager, County of Imperial
Aaron Popejoy, Creative Director/Operations Manager, Conveyor Group
Omar Ramos, Webmaster, Imperial Valley College
Cristobal Rodriguez, Applications Development Manager/Web Development, ICOE
Michael Carr, Information Systems Manager, City of El Centro

Student Representatives:

Matthew Thale

Counselor:

Janeen Kalin, Counselor, Imperial Valley College

CIS Faculty/Staff

Andres Martinez, Instructional Media Designer
Tom Paine, Professor of CIS
Walid Ghanim, Professor of CIS
Val Rodgers, Business Department Chair
Efrain Silva, Dean of Economic and Workforce Development
Maria Sell, Recording Secretary

1. Welcome and introductions

Val Rodgers welcomed the committee members on behalf of the CIS department and thanked them for taking time out of their busy schedules to attend the meeting. She indicated that it is important that faculty hear from representatives of the industry to ensure that the training we do here in the classroom matches what is needed to get a job and to keep a job in our community. She also gave an overview of the CIS discipline and described where CIS Department fits within the organizational structure of the college. She told the committee that out of nine full time instructors in our Business Department, there are two full time CIS instructors, two full time instructors who teach a portion of their load in CIS, and five adjunct faculty members.

Election of Committee Chair

Mrs. Rodgers gave the group an overview of committee chair responsibilities. She indicated that the person would be responsible for chairing at least two meetings a year of the CIS Advisory Committee. The meetings would include a review of CIS programs, the review and approval of performance data for CIS students, and a review/approval of the Perkins CIS funding plan for 2011-2012. The chair of the CIS advisory committee would also be agreeing to attend one additional meeting – the Local Planning Team Meeting -- which will include chairs of other advisory committees, such as nursing, law enforcement, child development, and industrial tech. At that meeting, a recommendation will be made for distribution of funding to applied science programs who have submitted a Perkins funding plan.

Mrs. Rodgers indicated that the advisory committee chair would have the help of the Business Department support staff in planning and organizing any meetings. It was agreed later in the meeting that Michael Carr would become the chair of the committee.

2. Review of CIS programs

Tom Paine and Walid Ghanim gave an overview of the CIS major and certificate programs. Mr. Paine discussed the student population the program targets. He also reiterated the importance of advisory committee meetings in determining if our efforts are working to make students employable. He asked for feedback to see if our students are being employed since our tracking methods are informal.

Mrs. Rodgers asked the committee if they noticed if our students are applying for positions at their locations. Susan Moler and Maribel Garcia reported that to their knowledge there were some who have applied. Aaron Popejoy reported that due to their stringent requirements, most IVC students do not qualify due to not having enough experience with Linux/Unix. Mrs. Rodgers indicated that if Linux/Unix training would be helpful to the CIS Program, department staff will confer with the Computer Science department to see about the possibility of adding a Linux/Unix course as an elective.

Walid Ghanim stated that the recent addition of WE 201/220 to the CIS Program has aided students in finding jobs through internships. Ms. Garcia added that it is difficult to hire programmers with no prior experience outside the classroom setting so having internships is beneficial. Mr. Popejoy added that his company is willing to take at least two interns per year while students are in the process of learning Linux/Unix. Cristobal Rodriguez replied that ICOE hires technicians that are knowledgeable in both Linux and Microsoft.

Mr. Popejoy asked why classes such as Photoshop, PowerPoint, Word, and Excel are electives for the CIS major and certificate. Mrs. Garcia offered that application courses are important for employees who do not have much experience with computers. Mr. Martinez added that students will be better rounded if they take such classes. There was general discussion that Excel is an important course for students who are transferring. Mr. Popejoy indicated that students should not be given the choice of picking a class such as Photoshop over Linux or even Excel. He further stated that Photoshop better fits in a multimedia major.

Andres Martinez and Omar Ramos gave an overview of the Multimedia and Web Development major and certificate program. Mr. Martinez stated that the Multimedia Program is in its fourth semester and added that a required class such as ART 112 Design teaches creativity so students can use as a basis for the rest of the courses.

Omar Ramos stated that XHTML, CSS, and JavaScript (CIS 212) were approved in fall of 2009. He also stated that PHP and MySQL (CIS 214) are more server related courses. There was discussion regarding the feasibility of separating PHP and MySQL into two separate courses.

Mr. Popejoy explained that his company normally hires someone with either design expertise or technical expertise. He also thought that the CIS 137 Dreamweaver course should be expanded to other website development tools currently used. Mr. Rodriguez, Mr. Martinez, and Mr. Ramos agreed that students should be exposed to other applications.

Ms. Garcia indicated that there seemed to be a need for a critical thinking course for students. She discussed difficulties employees at IID have analyzing end user needs and then writing the appropriate programming code. Mr. Ghanim suggested the possibility of adding discreet math as an option for critical thinking. Ms. Kalin informed the committee that a discreet math requires prerequisites that could add up to four additional math courses to a student's load. Mr. Paine suggested that a better alternative would be to use job specific assignments and problems within each CIS programming course that would help the student develop the skill. Ms. Kalin indicated that a one-unit capstone practicum course might be beneficial in developing critical thinking skills. She told the committee that CSU San Marcos requires that type of course in which groups of students are given a specific work-related problem to solve.

3. Approval/Endorsement of CIS programs/Certification that curriculum and programs meet industry needs

The committee approved/endorsed/certified that the CIS Major and Certificate programs and courses meet industry needs with the following revisions:

- Add a Linux/Unix course as elective
- Remove the Photoshop course from the list of electives
- Review/revise the list of electives for the CIS major and certificate programs
- Develop critical thinking problems/assignments within courses and consider adding a practicum courses to develop the critical thinking skill

The committee approved/endorsed/certified that the Multimedia and Web Development Major and Certificate programs and courses meet industry needs with the following considerations:

- Separating the PHP and MySQL course into two separate courses
- Expanding the Dreamweaver course to include other website development tools.

Mr. Rodriguez asked when the revisions would take effect to which Mrs. Rodgers responded the earliest would be fall of 2011.

4. Cisco Academy

Tom Paine and Val Rodgers discussed plans to implement a Cisco Academy at IVC. Mrs. Rodgers discussed with the group the progress made to implement a Cisco Academy at IVC during the last two semesters and asked for opinions regarding the need for Cisco training.

Ms. Garcia indicated that currently all IID technicians are Cisco certified; but when training is needed they have to send employees Los Angeles. She indicated that having the training nearby would be beneficial for future employees. Ms. Moler reiterated the fact that her employees also have to travel out of the county to get Cisco certified.

Mr. Carr added that most local companies have to contract out to install networking systems. However, when problems occur such as a virus, it is up to local employees to deal with. It would be more cost effective to have someone in-house who is able to respond in a timely manner. He also stated that once employees have the knowledge base for Cisco, they can work on all other networks.

In response to questions, Mrs. Rodgers indicated the Cisco Academy courses should begin in 2011-12.

Mr. Rodriguez asked what the price would be for the Cisco Academy. Mrs. Rodgers stated that students pay a per unit fee, which is currently \$26. Mr. Carr said that would be quite a savings since it costs \$1,800 currently to send employees to a five-day Cisco Academy, which doesn't include travel expenses and lost production.

There was general agreement that a Cisco Academy would benefit the community.

5. Other

Mr. Thale stated that as an IVC employee and as a student he would like to see more classes relating to database administration.

6. Adjourn

Mrs. Rodgers thanked everyone for their time and recommendations. Meeting was adjourned at 4:03 pm.

Attachment N

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Planned program activities must address the Section 135(b) requirements of the Career and Technical Education Act. For the complete text of the requirements, refer to your handouts.

SUBMIT ONE FORM PER ACTIVITY

Name: Tom Paine/Valerie Rodgers **Date:** August - October 2010

Program Name: CIS

TOP Code: 0702

1. Type of activity.

- | | |
|--|--|
| <input type="checkbox"/> Resource Development (Equipment, etc) | <input type="checkbox"/> Public Relations |
| <input type="checkbox"/> Fieldtrip | <input type="checkbox"/> Student Counseling/Guidance |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Accountability |
| <input checked="" type="checkbox"/> Curriculum Development | <input type="checkbox"/> Peer Tutoring |
| <input type="checkbox"/> Linkages | |

2. Describe activity in detail.

Developed curriculum for the CISCO CCNA Discovery Major and Certificate. The Cisco CCNA Discovery program helps prepare students for entry-level career opportunities, continuing education, and globally-recognized Cisco certifications. It provides the experience needed to help meet the growing demand for ICT professionals. The Internet is changing life as we know it -- bringing new economic and social opportunities to communities throughout the world, and increasing the global demand for information and communication technology (ICT) skills. Innovations such as social networking, cloud computing, e-commerce, web conferencing, and desktop virtualization are changing the way we live, work, play, and learn. These capabilities are all powered by networks, and organizations around the world are experiencing a shortage of qualified ICT candidates to design, install, and manage these networks.

CCNA Discovery provides general networking theory, practical experience, and opportunities for career exploration and soft-skills development. The curriculum emphasizes critical thinking, problem solving, collaboration, and the practical application of skills in a real world environment. All courses include embedded, highly interactive activities that stimulate learning and improve knowledge retention, hands-on labs, simulation-based learning activities, and online assessments.

3. Describe the expected significant improvement outcomes as a result of this activity.

Improves/expands CIS curriculum/program, including relevant technology

4. Total cost of this activity: \$ \$425 paid by District

VTEA funds requested for this activity: \$0

5. Date activity will be completed: October 7, 2010 approved by Curriculum Committee

6. Check all requirement(s) that will be addressed by this activity.

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

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.

6. Develop and implement evaluations of the CTE programs carried out with Perkins IV funds, including an assessment of how the needs of special populations are being met.

7. Initiate, improve, expand, and modernize quality CTE programs, including relevant technology.

8. Provide services of sufficient size, scope, and quality to be effective.

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.

7. Attachments, if applicable:

Official Quote(s)

Firm Cost Estimate(s)

Completed Travel Request(s)

Other: _____

Registration/Application Form(s)

Complete Vendor Info

Equipment Description (Model, Serial #, etc)

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Division Chair/Coordinator Initial for Approval: VJR

SUBMIT TO THE OFFICE OF INSTRUCTION FOR APPLIED SCIENCES

FOR APPLIED SCIENCES USE ONLY	
TOP Code: _____	Program: _____
Activity Summary: _____	
Date Received: _____	
Reviewed By: _____	
Signature: <u>[Signature]</u>	
<input type="checkbox"/> Approved	
Amount Requested: \$ _____	
Amount Approved: \$ _____	
<input type="checkbox"/> Denied (see below)	
<input type="checkbox"/> Returned for Changes (see below)	
Notes: _____	

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Planned program activities must address the Section 135(b) requirements of the Career and Technical Education Act. For the complete text of the requirements, refer to your handouts.

SUBMIT ONE FORM PER ACTIVITY

Name: Val Rodgers/Tom Paine/Michael Carr **Date:** September 29, 2010 and October 20, 2010

Program Name: CIS

TOP Code: 0702

1. Type of activity.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Resource Development (Equipment, etc) | <input type="checkbox"/> Public Relations |
| <input type="checkbox"/> Fieldtrip | <input type="checkbox"/> Student Counseling/Guidance |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Accountability |
| <input type="checkbox"/> Curriculum Development | <input type="checkbox"/> Peer Tutoring |
| <input type="checkbox"/> Linkages | |

2. Describe activity in detail.

Sept 29: Met with Southland Technology at IVC in Room 901 to discuss furniture/equipment needs for a Cisco Academy.

Oct 20: Traveled to Southland Technology to review proposal to install Cisco Pods and rack and cable management system in Room 901 to support a Cisco Academy.

3. Describe the expected significant improvement outcomes as a result of this activity.

Provides one vendor's proposal to evaluate and compare prior to a final decision.

4. Total cost of this activity: \$150
VTEA funds requested for this activity: \$150

5. Date activity will be completed: October 20, 2010

6. Check all requirement(s) that will be addressed by this activity.

1. Strengthen the academic and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs.
2. Link CTE at the secondary and the postsecondary levels, including by offering elements of not less than one program of study described in §122©(1)(A).
3. Provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences.
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.
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

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

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.

6. Develop and implement evaluations of the CTE programs carried out with Perkins IV funds, including an assessment of how the needs of special populations are being met.

7. Initiate, improve, expand, and modernize quality CTE programs, including relevant technology.

8. Provide services of sufficient size, scope, and quality to be effective.

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.

7. Attachments, if applicable:

Official Quote(s)

Firm Cost Estimate(s)

Completed Travel Request(s)

Other: _____

Registration/Application Form(s)

Complete Vendor Info

Equipment Description (Model, Serial #, etc)

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Division Chair/Coordinator Initial for Approval: J/R

SUBMIT TO THE OFFICE OF INSTRUCTION FOR APPLIED SCIENCES

FOR APPLIED SCIENCES USE ONLY	
TOP Code:	<u>0702</u> Program: <u>CIS</u>
Activity Summary:	<u>TR - Southland mts</u>
Date Received:	<u>11/8/10</u>
Reviewed By:	<u>ETORN S. JORDAN</u>
Signature:	<u>[Signature]</u>
<input type="checkbox"/> Approved	
Amount Requested: \$	<u>150</u>
Amount Approved: \$	<u>150</u>
<input type="checkbox"/> Denied (see below)	
<input type="checkbox"/> Returned for Changes (see below)	
Notes:	

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Planned program activities must address the Section 135(b) requirements of the Career and Technical Education Act. For the complete text of the requirements, refer to your handouts.

SUBMIT ONE FORM PER ACTIVITY

Name: Tom Paine / Val Rodgers Date: March 18, 2011

Program Name: CIS

TOP Code: 0702

1. Type of activity.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Resource Development (Equipment, etc) | <input type="checkbox"/> Public Relations |
| <input type="checkbox"/> Fieldtrip | <input type="checkbox"/> Student Counseling/Guidance |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Accountability |
| <input type="checkbox"/> Curriculum Development | <input type="checkbox"/> Peer Tutoring |
| <input type="checkbox"/> Linkages | |

2. Describe activity in detail.

Purchase projection systems for instructor demonstrations in Cisco classroom and classroom used for programming and multimedia courses.

3. Describe the expected significant improvement outcomes as a result of this activity.

Studies have indicated that technology based instruction is effective for students. Multimedia technology can be especially helpful because it can facilitate auditory skill development by integrating visual presentations with sound and animation.

4. Total cost of this activity: \$3569.25

VTEA funds requested for this activity: \$3569.25

5. Date activity will be completed: May, 2011

6. Check all requirement(s) that will be addressed by this activity.

1. Strengthen the academic and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs.
2. Link CTE at the secondary and the postsecondary levels, including by offering elements of not less than one program of study described in §1220(1)(A).
3. Provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences.
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.
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

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

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.

6. Develop and implement evaluations of the CTE programs carried out with Perkins IV funds, including an assessment of how the needs of special populations are being met.

7. Initiate, improve, expand, and modernize quality CTE programs, including relevant technology.

8. Provide services of sufficient size, scope, and quality to be effective.

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.

7. Attachments, if applicable:

Official Quote(s)

Firm Cost Estimate(s)

Completed Travel Request(s)

Other: _____

Registration/Application Form(s)

Complete Vendor Info

Equipment Description (Model, Serial #, etc)

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Division Chair/Coordinator Initial for Approval: _____

SUBMIT TO THE OFFICE OF INSTRUCTION FOR APPLIED SCIENCES

FOR APPLIED SCIENCES USE ONLY
TOP Code: _____ Program: _____
Activity Summary: _____
Date Received: _____
Reviewed By: _____
Signature: _____
<input type="checkbox"/> Approved
Amount Requested: \$ _____
Amount Approved: \$ _____
<input type="checkbox"/> Denied (see below)
<input type="checkbox"/> Returned for Changes (see below)
Notes: _____

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Planned program activities must address the Section 135(b) requirements of the Career and Technical Education Act. For the complete text of the requirements, refer to your handouts.

SUBMIT ONE FORM PER ACTIVITY

Name: Tom Paine / Val Rodger Date: November 29, 2010

Program Name: _____

TOP Code: _____

1. Type of activity.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Resource Development (Equipment, etc) | <input type="checkbox"/> Public Relations |
| <input type="checkbox"/> Fieldtrip | <input type="checkbox"/> Student Counseling/Guidance |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Accountability |
| <input type="checkbox"/> Curriculum Development | <input type="checkbox"/> Peer Tutoring |
| <input type="checkbox"/> Linkages | |

2. Describe activity in detail.

Purchase work benches and stools for Cisco Academy classroom.

3. Describe the expected significant improvement outcomes as a result of this activity.

To expand the computer repair and networking classroom and to expand access to students.

4. Total cost of this activity: \$7,061.10

VTEA funds requested for this activity: \$7,061.10

5. Date activity will be completed: 12/31/10

6. Check all requirement(s) that will be addressed by this activity.

1. Strengthen the academic and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs.
2. Link CTE at the secondary and the postsecondary levels, including by offering elements of not less than one program of study described in §122©(1)(A).
3. Provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences.
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.
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.

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Division Chair/Coordinator Initial for Approval: VJR

SUBMIT TO THE OFFICE OF INSTRUCTION FOR APPLIED SCIENCES

FOR APPLIED SCIENCES USE ONLY	
TOP Code:	<u>0702</u> Program: <u>CIS</u>
Activity Summary:	<u>Workshops</u>
Date Received:	<u>11/30/10</u>
Reviewed By:	<u>Evan Silva</u>
Signature:	<u>Evan Silva</u>
<input checked="" type="checkbox"/> Approved	
Amount Requested:	\$ <u>7061.10</u>
Amount Approved:	\$ <u>7,061.10</u>
<input type="checkbox"/> Denied (see below)	
<input type="checkbox"/> Returned for Changes (see below)	
Notes:	

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Planned program activities must address the Section 135(b) requirements of the Career and Technical Education Act. For the complete text of the requirements, refer to your handouts.

SUBMIT ONE FORM PER ACTIVITY

Name: Tom Paine **Date:** January 28, 2011

Program Name: CIS

TOP Code: 0702

1. Type of activity.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Resource Development (Equipment, etc) | <input type="checkbox"/> Public Relations |
| <input type="checkbox"/> Fieldtrip | <input type="checkbox"/> Student Counseling/Guidance |
| <input type="checkbox"/> Professional Development | <input type="checkbox"/> Accountability |
| <input checked="" type="checkbox"/> Curriculum Development | <input type="checkbox"/> Peer Tutoring |
| <input type="checkbox"/> Linkages | |

2. Describe activity in detail.

Purchase MSDNAA (Microsoft Developer Network Academic Alliance) Developer subscription for software and licenses.

3. Describe the expected significant improvement outcomes as a result of this activity.

This Developer subscription will provide Operating System licenses, MS Office, Network Server, and programming language software and licenses for classroom, lab, and student use. This product will bring IVC curriculum up-to-date with the current software products that we use in class.

4. Total cost of this activity: \$871
VTEA funds requested for this activity: \$871

5. Date activity will be completed: February 28, 2011

6. Check all requirement(s) that will be addressed by this activity.

1. Strengthen the academic and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs.
2. Link CTE at the secondary and the postsecondary levels, including by offering elements of not less than one program of study described in §122©(1)(A).
3. Provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences.
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.
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,

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

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.

6. Develop and implement evaluations of the CTE programs carried out with Perkins IV funds, including an assessment of how the needs of special populations are being met.

7. Initiate, improve, expand, and modernize quality CTE programs, including relevant technology.

8. Provide services of sufficient size, scope, and quality to be effective.

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.

7. Attachments, if applicable:

Official Quote(s)

Firm Cost Estimate(s)

Completed Travel Request(s)

Other: Webpage: MSDNAA.com

Registration/Application Form(s)

Complete Vendor Info

Equipment Description (Model, Serial #, etc)

Imperial Valley College
2010-2011 Career Technical Education Act Title IC/Perkins IV
CTE Activity Funding Form

Division Chair/Coordinator Initial for Approval: VR

SUBMIT TO THE OFFICE OF INSTRUCTION FOR APPLIED SCIENCES

FOR APPLIED SCIENCES USE ONLY	
TOP Code:	<u>0702</u> Program: <u>CIS</u>
Activity Summary:	<u>MSDNAA Developer Software</u>
Date Received:	<u>2/3/11</u>
Reviewed By:	<u>Eduardo Silva</u>
Signature:	<u>[Signature]</u>
<input checked="" type="checkbox"/> Approved	
Amount Requested:	\$ <u>871.-</u>
Amount Approved:	\$ <u>871.00</u>
<input type="checkbox"/> Denied (see below)	
<input type="checkbox"/> Returned for Changes (see below)	
Notes:	

Attachment 0

CISCO NETWORKING ACADEMY
Progress Report
November 23, 2010

Because of needs in the community, the CIS department has recently been working to develop a Cisco Academy and convert our existing computer repair/networking coursework and facilities to support this program. The project has been approved by our CIS Advisory Committee and Perkins Career Tech funds have been available to get the program started in the areas of instructor training, classroom/lab preparation, and equipment purchases. The program will be of great value to our students. Cisco is the world standard for networking; once students have Cisco certification, they should have the skill to work on any networking configuration. Currently, agencies in Imperial Valley must send employees to San Diego or Los Angeles for the training.

To develop the Cisco program, someone needs to go through the processes of developing the courses, investigating equipment needs, meeting with vendors, getting training, designing our labs and setting up the program. In addition, in order to teach the Cisco classes, each instructor must be oriented and trained for each course. Although Cisco strongly recommends that the instructor be CCNA certified, we would feel comfortable with the five-day instructor training offered through the Regional Center. There are no full-time or part time instructors who are currently Cisco certified. We will have to receive our training and support from a regional center, in this case San Diego Community College District. They are a brand new center and do not have the depth of experience that many other centers have.

The logistics and planning for these courses is much greater than for the other two certification courses currently taught. Putting the program in place will take tremendous amounts of time, communications with Cisco at many levels, travel to San Diego, and a lot of training time. Once the program is up and running, the teaching load will not be able to be handled by current staff and there is also the issue of student training and testing. Although we have made considerable progress thus far, finalizing the implementation of the program will be a great effort at many levels.

Although we had discussed a sabbatical and reassigned time for Tom Paine, we have come to the conclusion that this investment would not be wise for the District because Tom is planning to retire within two years. A new full time full time instructor who is Cisco certified would be ideal. If it is not feasible to hire a full time instructor, Tom would also be willing to work with an adjunct/consultant before he retires. We have spoken with Michael Carr and he is interested. He has worked as an adjunct in the CIS Department for several years; in his full time job he is the Information Systems Manager for the City of El Centro. In addition, he has been Cisco certified in the past and seems passionate about being part of this project. He has been involved with the development of the Cisco program at IVC since the beginning. Gordon Bailey is also interested in assisting with the program. Whether it is a full time or adjunct instructor(s), Tom would be willing to work as a team to get the program up and running before his retirement. Once the program is in place, three ongoing hours of reassigned time for a Curriculum Lead would be needed to:

- Monitor the lab facilities to ensure they meet current Cisco requirements
- Maintain our curriculum to meet current Cisco certification requirements (as with any technology, certificate standards change over time)
- Monitor the instructor's credentials to be sure they meet Cisco requirements
- Attend meetings and workshops at our regional center in San Diego
- Collaborate with other academies
- Provide training and/or support for instructors
- Assist in recruiting and scheduling of courses
- Coordinate repairs and maintenance to the classroom and lab equipment

The progress we have made to implement the Cisco Academy thus far and a timeline for future tasks are listed below:

PROGRESS MADE

Summer 2010

- Moved Business Division Lab from 901 to 2610
- Sent Curriculum Lead to 1-day training for teaching IT Essentials course

Fall 2010

- Developed and received approval of Cisco IT Essentials through Curriculum Committee
- Worked with Southland Technology, SigmaNet, and Nexus for quotes for Cisco gear/cable trays/wiring infrastructure
- Visited other colleges with Cisco training
- Worked the Cisco Academy in San Diego to meet requirements to become a Cisco school and to become familiar with processes
- Met with administrative and union representatives to determine options for a Cisco Curriculum Lead
- Ordered Workbenches/Stools/Surge Protectors
- Ordered LCD projector/stand/screen

TASKS PENDING

Must be complete before Spring 2011 and will involve the support of Maintenance, Instructional Technology staff(Javier Gutierrez), and IT staff:

- Complete preparation/remodel/wiring infrastructure for Room 901 and 902
- Move cabinets from 1705 to 901
- Move existing network equipment/tools/PCs and CIS Department furniture from 1705 to 901
- Put together workbenches for 901
- Complete CISCO equipment setup
- Install computer workstations (presently stored in closet in Room 902)
- Order Whiteboard

Spring 2011/Summer 2011

- Meet with committee to plan and develop program/make decisions regarding curriculum and training: Gordon Bailey, Tom Paine, Michael Carr, Val Rodgers
- Hire a new instructor or an adjunct instructor to assist with development and implementation of Cisco Academy – Cisco recommends the District have two Cisco qualified instructors as we progress with the training
- Train/certify instructors to teach CCNA Discovery Academy courses
- Familiarize instructors with CMS Simulator Tool and Packet Tracer software
- Send Michael Carr and Gordon Bailey for IT Essentials instructor training through Regional Center (Tom Paine is already trained.)
- Send all three instructors for CCNA training at the Regional Center for the first course in the Discovery series.

Fall 2011

- Phase in CISCO IT Essentials as a staff development course for IVC techs in a team teaching environment (Gordon Bailey, Michael Carr, and Tom Paine)
- Develop scheduling plan for CISCO Academy
- Begin development of curriculum for approval in 2011-2012 Catalog and State program approval package for Cisco courses and programs. (The curriculum will include the IT Essentials course (already approved) and the four courses in the CCNA Academy)

Spring 2012

Offer IT Essential course to students

Develop scheduling plan for additional Cisco courses

Fall 2012

Phase in CISCO Academy courses

Imperial Valley College
09-10 Career and Technical Education Act Perkins IV Title IC
CTE Activity Funding Form

Planned program activities must address the Section 135(b) requirements of the Career and Technical Education Act. For the complete text of the requirements, refer to your handouts.

SUBMIT ONE FORM PER ACTIVITY

Name: Tom Paine **Date:** 8/5/10

Program Name: Computer Information Systems

TOP Code: [Click here to enter text.](#)

1. Type of activity.

- | | |
|--|--|
| <input type="checkbox"/> Resource Development (Equipment, etc) | <input type="checkbox"/> Public Relations |
| <input type="checkbox"/> Fieldtrip | <input type="checkbox"/> Student Counseling/Guidance |
| <input checked="" type="checkbox"/> Professional Development | <input type="checkbox"/> Accountability |
| <input checked="" type="checkbox"/> Curriculum Development | <input type="checkbox"/> Peer Tutoring |
| <input type="checkbox"/> Linkages | |

2. Describe activity in detail.

To attend a CISCO training conference.

3. Describe the expected significant improvement outcomes as a result of this activity.
Due to the development of a CISCO program at IVC the CISCO training workshop will allow IVC to have a well qualified instructor.

- 4. Total cost of this activity:** \$ 956.00
VTEA funds requested for this activity: \$ 956.00

5. Date activity will be completed: 8/11/10

6. Check all Section 135(b) requirement(s) that will be addressed by this activity.

1. Strengthen the academic and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs.
2. Link CTE at the secondary and the postsecondary levels, including by offering elements of not less than one program of study described in §122C(1)(A).
3. Provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences.
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.
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.
6. Develop and implement evaluations of the CTE programs carried out with Perkins IV funds, including an assessment of how the needs of special populations are being met.
7. Initiate, improve, expand, and modernize quality CTE programs, including relevant technology.

Imperial Valley College
09-10 Career and Technical Education Act Perkins IV Title IC
CTE Activity Funding Form

8. Provide services of sufficient size, scope, and quality to be effective.

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.

7. Attachments, if applicable:

- | | |
|---|---|
| <input type="checkbox"/> Official Quote(s) | <input type="checkbox"/> Registration/Application Form(s) |
| <input type="checkbox"/> Firm Cost Estimate(s) | <input type="checkbox"/> Complete Vendor Info |
| <input checked="" type="checkbox"/> Completed Travel Request(s) | <input type="checkbox"/> Equipment Description (Model, Serial #, etc) |
| <input type="checkbox"/> Other: _____ | |

Division Chair/Coordinator Initial for Approval: _____

SUBMIT TO THE OFFICE OF INSTRUCTION FOR APPLIED SCIENCES

FOR APPLIED SCIENCES USE ONLY	
TOP Code: _____	Program: <u>CIS</u>
Activity Summary: <u>CISCO TRAINING</u>	
Date Received: <u>8/9/10</u>	
Reviewed By: <u>Edain Silva</u>	
Signature: <u>[Signature]</u>	
<input type="checkbox"/> Approved	
Amount Requested: \$ <u>956⁰⁰</u>	
Amount Approved: \$ <u>956⁰⁰</u>	
<input type="checkbox"/> Denied (see below)	
<input type="checkbox"/> Returned for Changes (see below)	
Notes: _____	

RECEIVED
AUG - 9 2010
Economic &
Workforce

Attachment P

**IMPERIAL VALLEY COLLEGE
CURRICULUM COMMITTEE
ADOPTED MINUTES
REGULAR MEETING
THURSDAY SEPTEMBER 15, 2011
3:05 p.m. – Board Room**

Present:	Tina Aguirre Kseniya Gregory Jose Ruiz Daniel Bermudez	Kathy Berry Michael Heumann Cathy Zazueta	Daniel Gilison Eric Lehtonen for Carol Lee Bruce Seivertson	Carol Hegarty Rick Castrapel David Zielinski
Consultants:	Ted Cesar Frank Rapp Efrain Silva	Alfredo Cuellar Toni Pfister	Jan Magno Gloria Carmona	Brian McNeece Taylor Ruhl
Absent:	Krista Byrd Norma Nunez	David Drury Valerie Rodgers	Jose Lopez	Norma Nava
Visitors:	Trinidad Argüelles			
Recorder:	Dixie Krimm			

I. Opening of the Meeting

A. Call to order

Kathy Berry called the regular meeting of the Imperial Valley College Curriculum Committee to order at 3:05 p.m. on Thursday, September 15, 2011. She welcomed Carol Lee as the new Curriculum Committee Co-Chair.

B. Approval of the Minutes

1. Regular Meeting of June 2, 2011

M/S (Seivertson/Aguirre) to approve the minutes of the September 1, 2011 regular meeting of the Curriculum Committee, as presented. The motion carried.

C. Student Learning Outcomes – Toni Pfister

Toni is still working on program learning outcome grids. She has given some of the grids out to the departments. At the most recent SLO meeting there was a question presented as to who is in charge of the degrees. Committee response was that divisions are supposed to be looking at their programs during the comprehensive program review process.

II. Action Items

A. Credit Courses

1. Deleted Courses

- a. PE 210 – Introduction to Physical Education (2)
- b. PE 220 – Introduction to Athletic Training (2)

M/S (Aguirre/Seivertson) to approve the deletion of PE 210 and PE 220, effective 2012 – 2013, as presented. The motion carried.

2. Revised Courses

- a. ATHL 150 – Intercollegiate Baseball & PE (2)
- b. ATHL 151 – Intercollegiate Basketball & PE (2)
- c. ATHL 152 – Intercollegiate Soccer & PE (2)
- d. ATHL 153 – Intercollegiate Softball & PE (2)
- e. ATHL 154 – Intercollegiate Tennis & PE (2)
- f. ATHL 155 – Intercollegiate Volleyball & PE (2)
- g. ATHL 156 – Intercollegiate Cross Country & PE (2)

M/S (Castrapel/Aguirre) to approve the addition of SLO's and assignments, update to textbooks, class size revision, and rubric change (from PE to ATHL) for ATHL 150, 151, 152, 153, 154, 155, and 156 effective 2012 - 2013, as presented. The motion carried.

- h. BUS 010 – Practical Accounting (3)
- i. BUS 124 – Introduction to Business (3)
- j. BUS 126 – Business and the Legal Environment (3)
- k. BUS 132 – Business Management (3)
- l. BUS 136 – Human Relations in Management (3)
- m. BUS 154 – Beginning Keyboarding and Document Formatting (3)
- n. BUS 156 – Keyboarding: Speed and Accuracy (3)
- o. BUS 167 – Machine Calculation (1)
- p. BUS 169 – Records Management (2)
- q. BUS 180 – Microsoft Office for the Workplace (4)
- r. BUS 230 – Introduction to Governmental Accounting (3)
- s. CIS 106 – PC Maintenance and Repair (3)
- t. CIS 107 – Computer Networking (3)
- u. ENGL 220 – Survey of American Literature I (3)
- v. ENGL 221 – Survey of American Literature II (3)
- w. ENGL 222 – Survey of World Literature (3)
- x. ENGL 223 – Survey of World Literature (3)
- y. ENGL 224 – Survey of English Literature (3)
- z. ENGL 225 – Survey of English Literature (3)
- aa. WE 201 – Employment Readiness (1)
- bb. WE 210 – General Work Experience (1-3)
- cc. WE 220 – Internship (1-4)

M/S (Heumann/Aguirre) to approve the addition/revision of SLO's and/or assignments and/or update to textbooks, for BUS 010, 124, 126, 132, 136, 154, 156, 167, 169, 180, 230; CIS 106, 107; ENGL 220, 221, 222, 223, 224, 225; WE 201, 210 and 220, effective 2011 - 2012, as presented. The motion carried.

Gloria mentioned that during a recent meeting with Paddy Wong of SIG it was recommended that the WE 210 and WE 220 be separated into individual courses as variable unit courses pose problems with the 320 report. Since this issue does not pertain to the motion it will be brought back to the committee as a discussion item at the next meeting.

- dd. BUS 144 – Principles of Marketing (3)
- ee. BUS 172 – Office Technology & Procedures 2

M/S (Aguirre/Castrapel) to approve the revision of the SAM code (from B to C), update of SLO's, assignments and textbooks for BUS 144 and BUS 172, effective 2012 - 2013, as presented. The motion carried.

- ff. BUS 164 – Office Technology & Procedures I (3)
- gg. CIS 108 – Computer Accounting (3)

hh. CIS 202 – Programming in Visual Basic (3)

M/S (Aguirre/Heumann) to approve the revision of the SAM code (from D to C), update of SLO's, assignments and textbooks for BUS 164, CIS 108, and CIS 202, effective 2012 - 2013, as presented. The motion carried.

ii. ENGL 230 – Introduction to Film History and Criticism (3)

HUM 230 – Introduction to Film History and Criticism (3) (Cross listed with ENGL 230)

M/S (Heumann/Seivertson) to approve the addition of ENGL 101 as a prerequisite, addition of SLO's and assignments, and update to textbooks for ENGL 230 and HUM 230, effective 2012 - 2013, as presented. The motion carried.

jj. ESL 032 – Verb Review 2 (1)

kk. ESL 033 – Verb Review 3 (1)

ll. ESL 034 – Verb Review 4 (1)

mm. ESL 035 – Verb Review 5 (1)

nn. ESL 036 – Verb Review 6 (1)

oo. ESL 038 – Verb Review 8 (1)

M/S (Gregory/Gilison) to approve the update to recommended preparation, SLO's, assignments, and textbooks for ESL 032, 033, 034, 035, 036, and 038, effective 2012 - 2013, as presented. The motion carried.

pp. ESL 037 – Verb Review 7 (1)

M/S (Castrapel/Aguirre) to approve the update to recommended preparation, SLO's, assignments, core content, and textbooks, for ESL 037, effective 2012 – 2013, as presented. The motion carried.

qq. HE 102 – Health Education (3)

M/S (Aguirre/Seivertson) to approve the update to course description, SLO's, assignments, and textbooks for HE 102, effective 2012 - 2013, as presented. The motion carried.

rr. NURS 121 – Nursing Skills Laboratory II (1)

ss. VN 112 – Intro to Patient Care II (5)

M/S (Aguirre/Seivertson) to approve the update to SLO's, assignments, course objectives, core content, and textbooks for NURS 121 and VN 112, effective 2012-2013, as presented. The motion carried.

tt. NURS 123 – Pharmacology II (1.5)

M/S (Aguirre/Seivertson) to approve the update to SLO's, assignments, course objectives, core content, textbooks, and SAM code (from B to C) for NURS 123, effective 2012-2013, as presented. The motion carried.

uu. NURS 125 – Nursing Process and Applications II (8.5)

M/S (Castrapel/Aguirre) to approve the update to SLO's, assignments, course description, objectives, core content, methods of evaluation, textbooks, and SAM code (from B to C) for NURS 125, effective 2012-2013, as presented. The motion carried.

vv. PE 144 – Advanced Basketball – Women (1)

M/S (Aguirre/Castrapel) to approve the update to SLO's, assignments, and textbooks, and removal of prerequisite for PE 144, effective 2012-2013, as presented. The motion carried.

ww. PE 161 – Pre-Season Conditioning for Athletes (1.5)

xx. PE 162 – In Season Conditioning for Athletes (1.5)

yy. PE 200 – Theory of Baseball (2)

zz. PE 201 – Theory of Basketball (2)

aaa. PE 202 – Theory of Softball (2)

bbb. PE 203 – Theory of Volleyball (2)

M/S (Aguirre/Seivertson) to approve the update to SLO's, assignments, and textbooks, and reduction of class sizes for PE 161, 162, 200, 201, 202 and 203, effective 2012-2013, as presented. The motion carried.

3. New Courses

a. CIS 162 – Cisco CCNA Discovery 1: Networking for Home and Small Businesses (4)

b. CIS 163 – Cisco CCNA Discovery 2: Working at a Small-to-Medium Bus or ISP (4)

c. CIS 164 – Cisco CCNA Discovery 3: Intro Routing/Switching in the Enterprise (4)

d. CIS 165 – Cisco CCNA Discovery 4: Designing & Supporting Computer Networks (4)

M/S (Castrapel/Aguirre) to approve the addition of CIS 162, 163, 164 and 165 to the credit curriculum, effective 2012 - 2013, as presented. The motion carried.

e. MATH 061 – Basic Mathematics (3)

f. MATH 071 – Pre-algebra (3)

g. MATH 081 – Beginning Algebra (4)

h. MATH 091 – Intermediate Algebra (5)

M/S (Aguirre/Heumann) to approve the addition of MATH 061, 071, 081 and 091 to the credit curriculum, effective 2012 - 2013, as presented. The motion carried.

Discussion: Eric Lehtonen reviewed the reasons for creating these new courses. He explained that the transition from MATH 070 to MATH 080 was not cohesive; MATH 070 did not prepare students effectively for MATH 080. The course content was not distributed effectively enough to provide students a successful transition between the levels. Regarding the increase in basic skills units for Math, Eric mentioned that since English had reduced some courses in basic skills it would allow the increase to occur in Math. He also stated that the Math curriculum has not expanded in many years although the need has and still exists.

i. PE 209 – Introduction to Physical Education (3)

j. PE 219 – Introduction to Athletic Training (3)

M/S (Seivertson/Aguirre) to approve the addition of PE 209 and 219 to the credit curriculum, effective 2012 - 2013, as presented. The motion carried.

A. Majors and Certificates

1. New Majors and Certificates

a. Cisco CCNA Discovery Major and Certificate

M/S (Aguirre/Castrapel) to approve the addition of the Cisco CCNA Discovery major and certificate to the credit programs, effective 2012 - 2013, as presented. The motion carried.

III. Discussion Items

None

IV. Information Items

Kathy – distributed and reviewed the advisory regarding Title 5 repetition and withdrawal from credit courses memo. Jan Magno stated that this would be implemented in summer 2012.

V. Other Items

None

VI. Next Regular Meeting: THURSDAY, October 6, 2011, 3:05 P.M.

CurricUNET committee review deadline: Thursday, September 29, 2011, 5:00pm

VII. The meeting adjourned at 3:43 p.m.

Imperial Valley College Academic Senate

Adopted Minutes

2 November 2011

I. Call to Order--The meeting was called to order by President Lehtonen at 1:32 p.m.

Present: Eric Lehtonen, Daniel Gilson, Frank Rapp, Michael Cushner, Craig Blek, Frank Miranda, Jill Kitzmiller, Celeste Armenta, Dave Drury, Cathy Zazueta, Terry Norris, Norma Nunez, Lorraine Mazeroll, Monica Ketchum, Jean Montenegro, Robert Baukholt, Barbara Nilson, Carol Lee, Allyn Leon, Mary Lofgern, Jill Nelipovich, Caroline Bennett, Michael Heumann, Kathy Berry, Danitza Aguirre.

Excused: Mary Jo Wainwright.

Absent: Glenn Swaidon, Kevin Marty, Kevin White.

Visitors: Tina Aguirre, Frances Beope, Alfredo Cuellar, Sheila Dorsey-Freeman, Gaylla Finnell, Eric Jacobson, Victor Jaime, Taylor Ruhl.

II. Visitors' Comments. Carol Lee presented copies of the proposed 2013-2014 calendars. Carol Lee announced that additional copies of the Academic Senate for Imperial Valley College Constitution and By-laws were available for senators who did not attend the recent Academic Senate retreat.

III. Consent Agenda

President Lehtonen pulled item III. 1. Academic Senate Minutes of 19 October 2011.

M/S/C (Nilson/Lee) to approve Consent Agenda items 2. and 3.

IV. Reports

1. President—Eric Lehtonen discussed the recent IVC Academic Senate retreat, estimating that roughly 60% of the current senators attended and stated that, based on the value of the retreat, the Senate would be wise to consider holding two such retreats per academic year, with the caveat that it always hold at least one.
President Lehtonen reminded the Senate that its role in the study of and recommendations to the Imperial Valley College Board regarding the administrative reorganization is extremely important.
President Lehtonen expressed his desire to create an IVC Academic Senate newsletter for all faculty and staff. Jean Montenegro asked whether or not President Lehtonen would be accepting submissions for such a newsletter if one was begun. President Lehtonen said that he would do so.
President Lehtonen informed the Senate that a majority of this meeting, for 2 November 2011, would be dedicated to discussion of resolutions which would be up for vote at the upcoming California Community College Academic Senate Plenary Session so as to give President Lehtonen direction on how to vote on said resolutions in accordance with the will of the IVC Academic Senate.
2. Past President--There was no Past President report.
3. Treasurer—Jill Nelipovich reported that the IVC Academic Senate balance stood at \$5,879.58. Monies had been spent for travel expenses for President Lehtonen and Senator Lofgren to attend the recent Area D meeting.
4. Associated Student Government—Danitza Aguirre reported that members of the IVC Associated Student government and their advisor, Sergio Lopez, would be attending a General Assembly of California Community College Associated Student Governments in Sacramento on 4 November 2011 and 5 November 2011.
5. Contingent Faculty—there was no Contingent Faculty report. Jean Montenegro requested that the term Contingent Faculty be changed to the term Part-Time Faculty.

6. Curriculum Committee—Carol Lee reported that the Curriculum Committee had met on 20 October 2011 and had approved upgrades to a number of course outlines and that the committee would meet again on 3 November 2011, with a high number of items to be approved in order to meet the 11 December 2011 deadline for course change approval.
7. Reorganization Committee--Daniel Gilson reported that the Reorganization Committee would be presenting its findings and proposals for recommendations regarding Administrative Reorganization at the 16 November 2011 IVC Academic Senate meeting.
8. Instructional Report—Kathy Berry presented the Senate with a report based on the Spring 2011 California Community College Chief Instructional Officers meeting. Vice-President Berry encouraged all senators to read and become familiar with the Student Success Task Force Report featured in her report. Important aspects of the Student Success Task Force Report include, but are not limited to, “Increasing college and career readiness,” including greater “collaboration with higher education and K-12 partners”; “Strengthen support for incoming students”; “Incentivize [sic] successful student behaviors”; “Align course offerings to meet student needs”; “Improve Basic Skills.” Vice-President Berry further informed the Senate that a power point presentation of the Task Force findings and recommendations could be found on the CCCCIO.com website under the “Spring 2011” link. Vice-President Berry further discussed the following items of concern with the Senate: Recent findings regarding the most reliable predictor of success in college English classes and several aspects of the Apportionment Report (320) including issues with To Be Arranged (TBA) class scheduling, course outlines of record not matching with actual classroom curriculum, and the necessity of a minimum of three days per week when classes for the college as a whole are held in order for the college to claim apportionment.
9. Other Committees—There were no other committee reports.

V. Action Items—There were no Action Items.

VI. Information

1. Announcement of Faculty Opening for the College Council—President Lehtonen announced an opening for a faculty representative on the IVC College Council.

2. Release of Academic Senate Survey to Faculty—Secretary Rapp presented six (6) proposed questions for a survey of IVC faculty to determine the faculty’s position regarding the following aspects of scheduling: Days of the week when classes would be scheduled, a campus hour, a final exam block schedule, and Spring Break. Additionally, Secretary Rapp presented a proposed letter to accompany the announcement of the survey to better inform faculty members so as to facilitate their responding in meaningful ways. It was suggested that the letter include the fact that comments could be made in response to each question as the questions themselves are in “Yes—No--Not Sure” format. No other suggestions were made; Secretary Rapp received the Senate’s approval to proceed with the survey.

VII. Discussion

1. 2011-2012 IVC Academic Senate Retreat Review—President Lehtonen requested that Senate members refer to the remarks he made regarding the IVC Senate retreat during his President’s Report.
2. Senate Advisement to President on Plenary Voting—President Lehtonen led discussion and informal voting on twenty-one (21) proposed resolutions under consideration at the upcoming California Community College Academic Senate Plenary Session. The senators present provided President Lehtonen with direction for voting on said resolutions for each of the twenty-one proposed resolutions.

VIII. *“For the Good of the Order”*—No suggestions for improvement nor identification of achievements were made or discussed.

IX. Adjournment—President Lehtonen adjourned the meeting at 2:52p.m. The next regularly scheduled meeting of the IVC Academic Senate shall take place on 16 November 2011 at 1:30p.m. in the Board Room.

CALIFORNIA COMMUNITY COLLEGES

CHANCELLOR'S OFFICE

1102 Q STREET
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<http://www.cccco.edu>



05/13/2012

Kathy Berry
Vice President, Academic Services
Imperial Valley College
380 East Aten Rd.
Imperial, CA 92251-0158

Dear Kathy Berry:

The Chancellor's Office hereby approves Imperial Valley College's **A.S. DEGREE** in **Cisco CCNA Discovery** as listed below. It has been entered into the Curriculum Inventory under T.O.P. code **070800** with **CAREER TECHNICAL EDUCATION (CTE)** status.

- **A.S. DEGREE** in **Cisco CCNA Discovery** with program control number **31264**.

The California Postsecondary Education Commission (CPEC) has authorized the Chancellor's Office to proceed to final approval, without its review, on many new community college programs, except programs of certain types that are of special interest to CPEC. This program is not a type that has been reserved for individual CPEC review and concurrence. Therefore, our approval is effective with this letter.

Good luck with this program.

Sincerely,
Sally J. Montemayor Lenz
Interim Dean
Academic Affairs Division

Cc: Dixie Krimm

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05/21/2012

Kathy Berry
Vice President, Academic Services
Imperial Valley College
380 East Aten Rd.
Imperial, CA 92251-0158

Dear Kathy Berry:

The Chancellor's Office hereby approves Imperial Valley College's **CERTIFICATE OF ACHIEVEMENT: 18 or greater semester (or 27 or greater quarter) units in Cisco CCNA Discovery** as listed below. It has been entered into the Curriculum Inventory under T.O.P. code **070800** with **CAREER TECHNICAL EDUCATION (CTE)** status.

- **CERTIFICATE OF ACHIEVEMENT: 18 or greater semester (or 27 or greater quarter) units in Cisco CCNA Discovery** with program control number **31278**.

The California Postsecondary Education Commission (CPEC) has authorized the Chancellor's Office to proceed to final approval, without its review, on many new community college programs, except programs of certain types that are of special interest to CPEC. This program is not a type that has been reserved for individual CPEC review and concurrence. Therefore, our approval is effective with this letter.

Good luck with this program.

Sincerely,
Sally J. Montemayor Lenz
Interim Dean
Academic Affairs Division

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