KAPIʻOLANI COMMUNITY COLLEGE

COMPREHENSIVE INSTRUCTIONAL PROGRAM REVIEW

2013-2016

Information Technology - Associate in Science Degree

College Mission Statement

Kapi'olani Community College

Strategic Plan: Mission, Vision, Values, and Commitments 2015-2021

Mission Statement: Kapiʻolani Community College provides students from Hawaiʻi's diverse communities open access to higher education opportunities in pursuit of academic, career, and lifelong learning goals. The College, guided by shared vision and values, and commitment to engagement, learning, and achievement, offers high quality certificate, associate degree, and transfer programs that prepare students for productive futures.

Vision Statement: Kapiʻolani Community College is a leading indigenous serving institution whose graduates strengthen the social, economic and sustainable advancement of Hawaiʻi's diverse communities in an evolving global community.

Values Statement: Kapiʻolani Community College enacts the following values:
Kapiʻolani Community College enacts the following values:
Kūpono: Practicing honesty and integrity with clarity in all relationships.
Kuleana: Sharing a common responsibility to support the future of our students, college,
Kūloaʻa: Ensuring that the needs of our students are met with support and service.
Kūlia: Creating meaningful curricula and learning experiences that serve as a foundation for all to stand and move forward.

Kapiʻolani Commitments – Outcome 1: Graduation

- Continue development of STAR, student registration interface, and guided pathways to completion and transfer.
- Increase availability of information on mobile devices.
- Improve data system for planning and management and with DOE.

- Develop predictive analytics for student success.
- Participate in UHCC innovation fund to achieve strategic outcomes ($1.25 million/year) related to Strategic Plan-Reducing Time to Degree Initiatives and Hawai'i Strategy Institutes.

Kapi'olani Commitments – Outcome 2: Innovation

- Develop sector visualization to display top employment sectors with salaries and degree attainment.
- Develop a tracking system to fully understand employer needs, apprenticeship, internship, clinical, and graduate placements, graduate earnings and advancement, and needs for further education and training.
- Build better workforce development system through credit and continuing education programs.
- Develop Native Hawaiians for leadership roles at the College and in the community.
- Advance the use and understanding of the Hawaiian language and culture.
- Develop community partnerships locally and globally that advance the college's indigenous serving goals.
- Develop baselines and benchmarks for 'āina-based and for place-based learning, undergraduate research, and teacher preparation.
- Improve enrollment management systems.
- Eliminate cost as a barrier to education.
- Continue to increase Pell grant participation.
- Increase private fund raising for needs based aid.
- Implement Open Educational Resources (OER) to replace most textbooks.

Kapi'olani Commitments – Outcome 3: Enrollment Growth

- Invest in outreach to high schools, GED programs, Native Hawaiian and Pacific Islander community partnerships.
- Integrate recruitment of working age adults into overall workforce development system.
- Target outreach strategies to innovative programs.
- Focus on campus-based re-enrollment strategies.

Kapi'olani Commitments – Outcome 4: Modern, Sustainable, Teaching and Learning Environments

- In conjunction with the Long Range Development Plan, impart a Hawaiian sense of place on campuses through landscaping, signage and gathering spaces to enable social and cultural sustainability of campus communities.
- Improve financial management systems.
- Reduce deferred maintenance backlog.
- Implement campus technology plan and develop a system of planned equipment replacement.

- In conjunction with the Long Range Development Plan, serve as role models and consultants to the community on sustainability.
- In conjunction with the campus Long Range Development Plan, design, develop, and build an on-campus training hotel that in addition to providing essential lodging, culinary, meeting and conference services, will serve as a catalyst to foster interdisciplinary collaboration with programs such as: Hawaiian Studies, Information Technology, Accounting, Marketing, and Massage Therapy.
- In collaboration with Lē'ahi Hospital and their Master Plan, develop a Kūpuna Clinical Teaching Hospital for Health Academic Programs.
- In conjunction with the Long Range Development Plan, participate in Modern Facilities Task Force to:
    - Define optimal design and learning elements for 21st century, 3rd decade educational infrastructure;
    - Establish goals for state-of-the art, digitally enabled, labs, classrooms, offices, and centers to support community engagement and partnerships across the state.

Program Mission Statement

The primary Information Technology (IT) program student focus is career preparation with three major emphases:

- insuring that our graduates possess the necessary IT skills and knowledge to enter the workforce upon graduation,
- preparing students and graduates to move seamlessly and successfully to UH Manoa, UH West Oahu, and other four-year institutions, and
- providing lifelong learning opportunities for Hawai`i's workforce that are designed to improve workforce skills and career progression and in a manner that is convenient to the incumbent workforce.

Part I. Executive Summary of Program Status Response to previous program review recommendations.

We accomplished most everything in our Action Plans for the previous Three-Year Program Review, with the exception of sustaining and expanding our peer tutoring program. To the contrary, our student success and retention efforts related to peer tutoring have been severely curtailed by cuts in the student staffing budget.

We did, however, continue ITS curricular expansion by beginning talks with UHAO on a new articulation to their BAS ISA program. We also continued to develop new degrees based on relevant, exemplary models at other institutions, by working on updating the IT AS and new certificates in Cybersecurity in conjunction with the C3T system-wide grant and our relationships with the MPICT, BATEC, and CyberWatch West consortia. We continued to make

progress in SLO assessment, and to recruit from the ICS service courses, etc. we continue to respond to industry trends by adapting curriculum and by professional development.

Part II. Program Description

History

The Information Technology program was established in 1966 as part of the Business Education Division at Kapi'olani Community College (KapCC). In keeping pace with industry standards, the program has evolved from punched cards and an isolated mainframe computer in 1966 to the present interactive networked environment that connects a mainframe computer at UH Manoa and several KCC IT faculty maintained servers with numerous microcomputers at the Diamond Head campus and remote student access sites. Instructional support was provided by the Information, Media and Technology Services division.

In Spring 1990, Kapi'olani Community College submitted the Information Technology program for consideration for the Secretary's Award as an Outstanding Vocational Education Program.

In Fall 1990, the A.S. degree was revised to better conform with the Data Processing Management Association (DPMA) model and was the only degree program in Hawai'i offering the full spectrum of training from an Xbase database management system on microcomputers to RPG on a minicomputer to COBOL/JCL on a mainframe computer.

In Spring 1992, the program was successfully expanded to include offering Information Technology courses and the Certificate of Completion off campus at the Correctional Facility at Halawa.

In Fall 1993, KCC became an academic partner with Novell, Inc., and offered certified network training. A Certificate of Completion in Networking Technologies was proposed and implemented in Fall 1994.

Training in networking has been incorporated in the Certificate of Achievement and Associate in Science Degree effective Fall 1995. From Fall 1993 on, the program offered the following Information Technology credentials:

- an Associate in Science Degree (Programmer, Junior Analyst)
- a Certificate of Completion (Front-end GUI and Database Connectivity) and
- since 2002, a Certificate of Competence (PC Maintenance)

In 1998, we entered a one-year agreement with CISCO to provide training in CISCO network routing. The contract has since lapsed and we no longer offer this vendor training. Instead, we continue to offer nonvendor specific training in network management. Similarly, we no longer

offer Novell training. New technologies are introduced and others fade away, so we have discontinued our courses in RPG on the minicomputer (AS 400) platform.

In Fall 2001, we began offering "topics" courses to allow us to rapidly respond to industry trends and needs, including an "Oracle" course that led to Oracle certification. In Fall 2002, we started offering courses leading to Microsoft Certified Systems Administrator (MCSA).

As of Fall 2003, courses were offered in Visual Basic .NET, game programming, and Business PC Systems Maintenance/Support and Operating Systems Installation to address the changing IT employment requirement due to outsourcing and September 11, 2001.

In Fall 2005, all courses using Microsoft Office Applications (ICS 100, ICS 101, ITS 102, ITS 113) were upgraded to MS Office 2003. This entailed upgrades to the three class/labs and one open lab, instructors' workstations, and new textbooks. ITS 157, Web Design and Development, switched from a Microsoft tool, Frontpage, to a Macromedia tool, Dreamweaver MX 2004, based on industry standards and student feedback. The program also invested in a server to pursue development in Sharepoint Services for both staff and student use.

In Spring 2005, the UH mainframe changed its operating system to zOS. Subsequent problems regarding communication between students' computers and the mainframe were resolved.

In Spring 2006, we introduced a new topics course (ITS 220S) on PC and Network Security based on feedback we received from both our students and advisory group.

In Fall 2006, we renewed our Oracle license after a year's lapse and updated the curriculum to provide local industry with current technology training.

In Fall 2007, we restructured our AS program by renumbering our courses using a consistent, logical methodology and created a series of short certificates as a persistence strategy to reward students for concentrated study along a technology line.

In Fall 2008, as a result of our success in awarding short certificates, but unfortunately not receiving much credit for them, we expanded our three certificates in programming, help desk services, and database administration to include a foundation course in business applications; thereby, changing the certificates to completion (12+ credits), which are counted towards our Perkins' numbers.

In Fall 2009, after several years of futilely trying to develop a system-wide articulation agreement with the University of Hawai'i at West Oahu (UHWO), we started the process to develop our own independent agreement. To accomplish that end, we proposed an Advanced Professional Certificate (APC) in IT at KapCC composed of six 300-level IT courses that would cleanly and wholly transfer to UHWO. In addition, we worked with the other AS and transfer

programs of the Business, Legal and Technology Education Department (BLT), formerly the Business Education Department, on a Title III Renovation Grant that would "makeover" our Computer Lab into a Business Education Collaboration Center.

In Fall 2010, we began our Advanced Professional Certificate by offering two 300-level ITS courses, ITS 327 and ITS 324. While we wanted to offer three ITS courses per semester at the 300 level to pace students through a one year completion of the certificate, because of various resource constraints we were only able to offer two courses in the first semester. However, in Spring 2011, we ramped up to speed and began offering three APC courses. All courses transferred to the UHWO Bachelor of Applied Science (BAS) with a Concentration in Information Technology. Enrollments in all courses were extremely high.

During the Summer of 2011, we moved out of our Kopiko classrooms and lab and into temporary quarters in the Mamane building to allow for the renovations of the Kopiko facilities.

In Fall 2011, we continued our stay in the temporary Mamane quarters. We tried to "make do" with a very inadequate, undesirable situation. Meanwhile, commencement of renovations on our Kopiko facilities was postponed for a variety of logistical, fiscal reasons. Still, we continued our AS IT courses, our APC IT courses, our pre-ICS courses, and our service courses. In addition, we hired a new full-time faculty to replace a recent retiree to teach our programming line of courses.

Though the campus overall experienced slight declines in enrollment, the IT Program courses experienced a modest increase in enrollment. Our 300-level courses, offered in the early evening to accommodate an already employed workforce as well as current students, continued their strong enrollments. As part of one of our 300-level courses, we began a collaboration with the Waikiki Aquarium to create a series of water-based keiki games for use on mobile devices. This coincided with a
Perkins Left Over Grant of $15,000 we received to purchase 32 Android Tablets, which were used in the Aquarium project. In addition, we received a regular Perkins Grant of over $180,000 to purchase equipment and software to setup and use a Virtual Machine (VM) Server for classroom use and department support.

In Fall 2012, work began in earnest on the Kopiko renovations. We also hired our latest ICS/IT faculty from a vacancy from several years back. Our enrollments for all our courses—AS, APC, ICS, service— were up. Students in one of our 300-level security classes participated and placed nationally in the 2012 National Cyber Security Contest.

In Fall 2014, the program was party to a UHCC system-wide $10 million TAACCCT grant focused in Cybersecurity and Health. A Netlab+ online virtual lab environment was purchased and installed, and significant curriculum development was done. One cybersecurity-focused

competency was added to most ITS courses and one cybersecurity program SLO was added to the AS IT. Three new cybersecurity courses were developed and added to the AS IT and CA IT. Third, a new Certificate of Competence in Cybersecurity was developed. These changes were submitted February 2015 and approved in January 2016 to be effective in Fall 2016.

Effective Spring 2016, the Pre-ICS transfer classes, ICS 111, ICS 211, ICS 141, and ICS 241, were moved from the IT program to Arts and Sciences along with one full-time faculty position. A full-time ICS faculty member was hired in Arts and Sciences to manage and teach those classes. ICS 101, ICS 100, and ICS 110 remain with Business, Legal, and Technology. At the same time, a full-time faculty member was hired with a focus in cybersecurity to help with the new program and classes.

All programs emphasize the use of computers to support business and to develop business applications as well as information security. As of Spring 2016, the program has six full-time faculty members, including a designated program coordinator. Currently however, two faculty members are currently on leave indefinitely, so actual staffing in the program is only four full-time faculty.

Program Goals

1. To provide graduates with the entry-level skills and knowledge necessary for performing services as a computer support specialist, technical support specialist, help desk technician, network administrator, programmer, database administrator, cybersecurity professional, or Web developer using rapid prototyping tools to produce the front-end GUI interface with connectivity to appropriate databases at the back-end.

2. To provide the upgrading of skills of those currently employed in the Information Technology field.

Occupations for which this program prepares students

- Windows Application Developer
- Web Applications Developer
- Database Administrator
- IT Specialist
- Help Desk Technician
- Network Specialist
- Programmer
- Cybersecurity Professional

Program SLOs

1. Design and develop software solutions for contemporary business environments by employing appropriate problem solving strategies.
2. Configure and administer database servers to support contemporary business solutions.
3. Configure and administer networks to contribute to contemporary business solutions.
4. Design, and develop web solutions to address contemporary business objectives.
5. Learn future technologies through acquired foundational skills and knowledge and employ them in new business environments.
6. Practice communication, problem solving and decision-making skills through the use of appropriate technology and with the understanding of the business environment.
7. Demonstrate knowledge of current information, network, and cyber security issues and implement best practices in mitigation and recovery.

(Effective Fall 2016)

Admission Requirements

Standard Kapi`olani Community College admissions.

Credentials, Licensures Offered

Preparation for:

- CompTIA A+
- CompTIA Network +
- CompTIA Security+
- CompTIA Server+
- CompTIA Certified Ethical Hacker
- Oracle Database 10g Administrator Certified Associate
- Oracle Database 10g Administrator Certified Professional
- Certified Internet Web Professional (CIW)
- Microsoft Certified Technology Specialist
- Microsoft Certified Professional Developer
- Microsoft Certified Application Specialist (Word, Excel, PowerPoint, Access 2007)

Faculty and Staff

- Alfred Seita, M.S., Professor, tenured, 1994 (Teaches Business Mathematics, ICS service classes and ITS classes)
- Kevin Yokota. B.S., Assistant Professor, tenured, 1999 (Teaches both ICS service classes and ITS) (On Leave)

- Steven Singer, Ed.D., Professor, tenured, 2005 (Teaches both ICS service classes and ITS classes)
- Hal Corcoran, M.S., Assistant Professor, tenured, 2014 (Teaches both ICS service and ITS classes)
- Michael Paulding, M.S. Assistant Professor, tenured, 2015 (Teaches both ITS Programming courses and BUS Calculus classes) (On Leave)
- David Stevens, M.S., Instructor, probationary, 2016 (Teaches both ICS service and ITS classes)

Lecturers

- Dale Nakasone
- Arthur Louie
- Steven Takaki
- Tom Moore
- Milica Barjaktarovic
- Michael Pfaefflin
- Khaalis Hall
- Monir Hodges

It should be noted that faculty within the IT program teach several different types of classes. Some classes are strictly for the IT major and have the ITS alpha. Some classes are service classes for either programs at the KapCC campus or for UHM Shidler CBA, or TIM: ICS 100 and ICS 101.

Resources

- Four networked class/labs with 20-30 student workstations, shared with other BLT programs (Accounting, Marketing, and Paralegal)
- Four instructor workstations with projection capabilities, shared with other BLT programs
- One open lab, shared with other BLT programs, with 20-30 student workstations
- Software as appropriate to teach current business applications, programming languages, networking operations, and database and web technologies, shared with other BLT programs
- Two counselors, shared with other BLT programs
- One lab manager, shared with other BLT programs
- One secretary, shared with other BLT programs
- One half-time clerical assistant, shared with other BLT programs
- Two to six student assistants to staff the open lab and assist the secretary, shared with other BLT programs.

Articulation Agreements

- UHCC System ETRO/CENT

- UH-West Oahu BAS in Information Technology
- UH Hilo transfer agreement
- HPU (outdated, undergoing review)

Community Connections, Advisory Committees, Internships, Coops

Naomi	Stafford	Midori Designs Online
Keith	Furuya	DTRIC Insurance
Joel	Kumabe	Hawai'i State FCU
Brandon	Onishi	Hawai'i an Telcom
Colleen	Leopoldino	HMSA
Gordon	Bruce	PACXA
Mark	Wong	C and C of Honolulu
Ricky	Chow	Computer Assurance
Randy	Baldemor	St. of HI
Doreen	Nozawa	Servco
Derrick	Wong	Servco
Glenn	Nishida	Kupaa Group
David	Lopes	Kupaa Group
Keith	Ho	City and County of Honolulu
Loren	Aquino	PACXA
Captain	Bean	NSA
Bob	Russio	HSMA
David	Rolla	HECO
Randolf	Batoon	Partners in Development Foundation
Jordan	Vannatta	Referentia
Paul	Sakamoto	UHCC VP Office
Jeff	Gionet	Starwood Hotels
Sam	Ikemoto	Servco
Sandy	Park	HTDC
Danny	Dallegos	Anthology Inc
Tony	Giandomenico	Referentia
Erica	Wingad	HECO
Naomi	Stafford	Midori Designs Online
Keith	Furuya	DTRIC Insurance
Joel	Kumabe	Hawai'i State FCU
Brandon	Onishi	Hawai'i an Telcom

Internships

- American Savings Bank
- Kaiser Permanente,
- University of Hawai‘i ROTC
- UH Foundation
- KCC - CELTT
- Red Cross
- Moanalua Middle School
- Epower Sports LLC
- Hawai‘i an Mission Houses
- Sheraton Hawai‘i
- Geek Squad
- Palolo Learning Center
- University of Hawai‘i - West Oahu
- Office of Hawai‘i an Affairs
- Cam Security
- Kaimuki High School
- Kuakini Health Systems
- Oceanic Time Warner Cable
- Clear Channel Radio
- Computer Doctor Hawai‘i Technology with K LLP.
- Department of the Navy
- Hawai‘i National Guard

DOE Connections

Standard Kapi`olani Community College connections.

Distance Delivered/Off-Campus Programs, if applicable

ICS 100, Computing Literacy and Applications, 2-3 sections each semester
ICS 101, Digital Tools for the Information World, 5-6 sections each semester
ITS 129, Introduction to Databases, 1 section each semester

Part III. Curriculum Revision and Review (Minimum of 20% of existing courses is to be reviewed each year.)

SUBJ	CRS#	TITLE	AY Last Approved	ACTION *	sp12	f12	sp13	f13	sp14	f14	sp15	f15
ICS	100	Computing Literacy and Apps	2015-16	modify							x	
ICS	101	Tools for the Information Age	2015-16	modify							x	
ITS	124	Small Business Networking	2015-16	modify							x	
ITS	128	Introduction to Problem Solving	2015-16	modify							x	
ITS	129	Introduction to Databases	2015-16	modify							x	

ITS	144	Business PC System Maintenance/Support and OS Installation	2012-13	update	x							
ITS	148	Visual Basic I	2015-16	modify							x	
ITS	149AD	Database Administration I	2015-16	modify							x	
ITS	224	Help Desk Support Practices	2013-14	modify				x				
ITS	227	Web Site Development	2015-16	modify							x	
ITS	228	Visual Basic II	2015-16	modify							x	
ITS	229AD	Database Administration II	2015-16	modify							x	
ITS	293	Information Technology Program Internship	2015-16	modify							x	

All but 2 major courses in the AS Information Technology program, along with the ICS service courses, were revised during AY 2015-16

Part IV. Survey results

Student satisfaction

Although we did not conduct a "student satisfaction" survey other than the college's End-of Semester Student Feedback Survey, we did conduct separate "student interest" surveys to help ascertain student's interest in the scheduling of courses.

Occupational placement in jobs (for CTE programs)

We have consistently failed to meet our ARPD student placement goals. Two possible explanations may be that 1) the college has only recently started a job placement program and 2) the vast majority of our IT AS students were continuing on towards their APC in IT and BAS in IT. Despite these numbers, anecdotal evidence and contact with former students indicates that, with very few exceptions, all of our Information Technology students find employment in the IT field upon or shortly following graduation.

Employer satisfaction (for CTE programs)

(no data)

Graduate/Leaver (for CTE programs)

(no data)

Part V. Quantitative Indicators for Program Review

2013

Demand Indicators		Program Year			Demand Health Call
		10-11	11-12	12-13	
1	New & Replacement Positions (State)	45	182	177	Cautionary
2	*New & Replacement Positions (County Prorated)	39	93	142	
3	*Number of Majors	138	152.5	153	
3a	Number of Majors Native Hawai'i an	16	19	20	
3b	Fall Full-Time	51%	48%	52%	
3c	Fall Part-Time	49%	52%	48%	
3d	Fall Part-Time who are Full-Time in System	1%	4%	3%	
3e	Spring Full-Time	53%	54%	50%	
3f	Spring Part-Time	47%	46%	50%	
3g	Spring Part-Time who are Full-Time in System	1%	2%	3%	
4	SSH Program Majors in Program Classes	1,374	1,488	1,431	
5	SSH Non-Majors in Program Classes	3,414	3,201	2,778	
6	SSH in All Program Classes	4,788	4,689	4,209	
7	FTE Enrollment in Program Classes	160	156	140	
8	Total Number of Classes Taught	78	77	69	
Efficiency Indicators		**Program Year**			**Efficiency Health Call**
		10-11	11-12	12-13	
9	Average Class Size	20.5	20.3	20.3	Healthy
10	*Fill Rate	92.7%	89.9%	88.9%	
11	FTE BOR Appointed Faculty	5	5	6	
12	*Majors to FTE BOR Appointed Faculty	27.6	30.5	25.5	
13	Majors to Analytic FTE Faculty	16.2	17.9	20.1	
13a	Analytic FTE Faculty	8.5	8.5	7.6	
14	Overall Program Budget Allocation	$566,763	$618,179	$704,808	
14a	General Funded Budget Allocation	$566,763	$598,980	$589,081	
14b	Special/Federal Budget Allocation	$0	$0	$0	
14c	Tuition and Fees	$0	$19,199	$115,727	
15	Cost per SSH	$118	$132	$167	
16	Number of Low-Enrolled (<10) Classes	3	0	1	

Effectiveness Indicators		Program Year			Effectiveness Health Call
		10-11	11-12	12-13	
17	Successful Completion (Equivalent C or Higher)	72%	75%	73%	Cautionary
18	Withdrawals (Grade = W)	168	110	133	
19	*Persistence Fall to Spring	75.5%	72.6%	66.8%	
19a	Persistence Fall to Fall			46.4%	
20	*Unduplicated Degrees/Certificates Awarded	41	61	85	
20a	Degrees Awarded	16	25	22	

20b	Certificates of Achievement Awarded	2	10	27
20c	Advanced Professional Certificates Awarded	0	4	2
20d	Other Certificates Awarded	60	96	131
21	External Licensing Exams Passed		Not Reported	Not Reported
22	Transfers to UH 4-yr	7	9	15
22a	Transfers with credential from program	3	3	6
22b	Transfers without credential from program	4	6	9

Distance Education: Completely On-line Classes		Program Year		
		10-11	11-12	12-13
23	Number of Distance Education Classes Taught	13	16	13
24	Enrollments Distance Education Classes	301	350	285
25	Fill Rate	93%	88%	88%
26	Successful Completion (Equivalent C or Higher)	62%	66%	64%
27	Withdrawals (Grade = W)	48	33	34
28	Persistence (Fall to Spring Not Limited to Distance Education)	68%	58%	58%

Perkins IV Core Indicators 2011-2012		Goal	Actual	Met
29	1P1 Technical Skills Attainment	90.00	96.36	Met
30	2P1 Completion	50.00	52.73	Met
31	3P1 Student Retention or Transfer	74.25	79.80	Met
32	4P1 Student Placement	60.00	60.00	Met
33	5P1 Nontraditional Participation	17.00	21.84	Met
34	5P2 Nontraditional Completion	15.25	36.00	Met

Performance Funding		Program Year		
		10-11	11-12	12-13
35	Number of Degrees and Certificates			51
36	Number of Degrees and Certificates Native Hawai‘i an			5
37	Number of Degrees and Certificates STEM			51
38	Number of Pell Recipients			43
39	Number of Transfers to UH 4-yr			15

2014

Demand Indicators		Program Year			Demand Health Call
		11-12	12-13	13-14	
1	New & Replacement Positions (State)	182	177	156	Healthy
2	*New & Replacement Positions (County Prorated)	93	142	78	
3	*Number of Majors	152.5	153	139.5	

3a	Number of Majors Native Hawai'i an	19	20	21	
3b	Fall Full-Time	48%	52%	48%	
3c	Fall Part-Time	52%	48%	52%	
3d	Fall Part-Time who are Full-Time in System	4%	3%	4%	
3e	Spring Full-Time	54%	50%	51%	
3f	Spring Part-Time	46%	50%	49%	
3g	Spring Part-Time who are Full-Time in System	2%	3%	3%	
4	SSH Program Majors in Program Classes	1,488	1,431	1,461	
5	SSH Non-Majors in Program Classes	3,201	2,778	2,919	
6	SSH in All Program Classes	4,689	4,209	4,380	
7	FTE Enrollment in Program Classes	156	140	146	
8	Total Number of Classes Taught	77	69	71	
Efficiency Indicators		**Program Year**			**Efficiency Health Call**
		11-12	**12-13**	**13-14**	
9	Average Class Size	20.3	20.3	20.6	**Healthy**
10	*Fill Rate	89.9%	88.9%	92.9%	
11	FTE BOR Appointed Faculty	5	6	5	
12	*Majors to FTE BOR Appointed Faculty	30.5	25.5	27.9	
13	Majors to Analytic FTE Faculty	17.9	20.1	17.7	
13a	Analytic FTE Faculty	8.5	7.6	7.9	
14	Overall Program Budget Allocation	$618,179	$704,808	$624,168	
14a	General Funded Budget Allocation	$598,980	$589,081	$412,575	
14b	Special/Federal Budget Allocation	$0	$0	$0	
14c	Tuition and Fees	$19,199	$115,727	$211,593	
15	Cost per SSH	$132	$167	$143	
16	Number of Low-Enrolled (<10) Classes	0	1	0	
Effectiveness Indicators		**Program Year**			**Effectiveness Health Call**
		11-12	**12-13**	**13-14**	
17	Successful Completion (Equivalent C or Higher)	75%	73%	73%	**Healthy**
18	Withdrawals (Grade = W)	110	133	125	
19	*Persistence Fall to Spring	72.6%	66.8%	66.9%	
19a	Persistence Fall to Fall		46.4%	52.6%	
20	*Unduplicated Degrees/Certificates Awarded	61	85	59	
20a	Degrees Awarded	25	22	18	
20b	Certificates of Achievement Awarded	10	27	22	
20c	Advanced Professional Certificates Awarded	4	2	3	
20d	Other Certificates Awarded	96	131	64	
21	External Licensing Exams Passed	Not Reported	Not Reported	Not Reported	
22	Transfers to UH 4-yr	9	15	14	
22a	Transfers with credential from program	3	6	4	
22b	Transfers without credential from program	6	9	10	

	Distance Education: Completely On-line Classes	Program Year			
		11-12	12-13	13-14	
23	Number of Distance Education Classes Taught	16	13	12	
24	Enrollments Distance Education Classes	350	285	262	
25	Fill Rate	88%	88%	87%	
26	Successful Completion (Equivalent C or Higher)	66%	64%	59%	
27	Withdrawals (Grade = W)	33	34	47	
28	Persistence (Fall to Spring Not Limited to Distance Education)	58%	58%	54%	
	Perkins IV Core Indicators 2012-2013	**Goal**	**Actual**	**Met**	
29	1P1 Technical Skills Attainment	90.00	92.59	Met	
30	2P1 Completion	55.00	59.26	Met	
31	3P1 Student Retention or Transfer	74.50	90.22	Met	
32	4P1 Student Placement	65.00	60.00	Not Met	
33	5P1 Nontraditional Participation	17.25	20.69	Met	
34	5P2 Nontraditional Completion	15.55	22.37	Met	
	Performance Funding	**Program Year**			
		11-12	12-13	13-14	
35	Number of Degrees and Certificates		51	43	
36	Number of Degrees and Certificates Native Hawai‘i an		5	3	
37	Number of Degrees and Certificates STEM		51	43	
38	Number of Pell Recipients		43	44	
39	Number of Transfers to UH 4-yr		15	14	

2015

	Demand Indicators	Program Year			Demand Health Call
		12-13	13-14	14-15	
1	New & Replacement Positions (State)	177	156	146	

2	*New & Replacement Positions (County Prorated)	142	78	80	Cautionary
3	*Number of Majors	153	140	147	
3a	Number of Majors Native Hawai'i an	20	21	19	
3b	Fall Full-Time	52%	48%	53%	
3c	Fall Part-Time	48%	52%	47%	
3d	Fall Part-Time who are Full-Time in System	3%	4%	2%	
3e	Spring Full-Time	50%	51%	51%	
3f	Spring Part-Time	50%	49%	49%	
3g	Spring Part-Time who are Full-Time in System	3%	3%	6%	
4	SSH Program Majors in Program Classes	1,431	1,461	1,443	
5	SSH Non-Majors in Program Classes	2,778	2,919	2,802	
6	SSH in All Program Classes	4,209	4,380	4,245	
7	FTE Enrollment in Program Classes	140	146	142	
8	Total Number of Classes Taught	69	71	71	
Efficiency Indicators		**Program Year**			**Efficiency Health Call**
		12-13	**13-14**	**14-15**	
9	Average Class Size	20.3	20.6	19.9	Healthy
10	*Fill Rate	88.9%	92.9%	91%	
11	FTE BOR Appointed Faculty	6	5	6	
12	*Majors to FTE BOR Appointed Faculty	25.5	27.9	24.5	
13	Majors to Analytic FTE Faculty	20.1	17.7	18.5	
13a	Analytic FTE Faculty	7.6	7.9	8.0	
14	Overall Program Budget Allocation	$704,808	$624,168	$593,915	
14a	General Funded Budget Allocation	$589,081	$412,575	$498,094	
14b	Special/Federal Budget Allocation	$0	$0	$0	
14c	Tuition and Fees	$115,727	$211,593	$95,821	
15	Cost per SSH	$167	$143	$140	
16	Number of Low-Enrolled (<10) Classes	1	0	0	
Effectiveness Indicators		**Program Year**			**Effectiveness Health Call**
		12-13	**13-14**	**14-15**	
17	Successful Completion (Equivalent C or Higher)	73%	73%	73%	Healthy
18	Withdrawals (Grade = W)	133	125	136	
19	*Persistence Fall to Spring	66.8%	66.9%	70.6%	
19a	Persistence Fall to Fall	46.4%	52.6%	44.6%	
20	*Unduplicated Degrees/Certificates Awarded	85	59	67	
20a	Degrees Awarded	22	18	28	
20b	Certificates of Achievement Awarded	27	22	18	
20c	Advanced Professional Certificates Awarded	2	3	1	
20d	Other Certificates Awarded	131	64	85	
21	External Licensing Exams Passed	Not Reported	Not Reported	N/A	
22	Transfers to UH 4-yr	15	14	14	

22a	Transfers with credential from program	6	4	9	
22b	Transfers without credential from program	9	10	5	
Distance Education: Completely On-line Classes		Program Year			
		12-13	13-14	14-15	
23	Number of Distance Education Classes Taught	13	12	14	
24	Enrollments Distance Education Classes	285	262	318	
25	Fill Rate	88%	87%	91%	
26	Successful Completion (Equivalent C or Higher)	64%	59%	55%	
27	Withdrawals (Grade = W)	34	47	36	
28	Persistence (Fall to Spring Not Limited to Distance Education)	58%	54%	63%	
Perkins IV Core Indicators 2013-2014		Goal	Actual	Met	
29	1P1 Technical Skills Attainment	91.00	93.48	Met	
30	2P1 Completion	47.00	43.48	Not Met	
31	3P1 Student Retention or Transfer	75.21	80.65	Met	
32	4P1 Student Placement	68.92	44.44	Not Met	
33	5P1 Nontraditional Participation	17.50	21.60	Met	
34	5P2 Nontraditional Completion	16.00	21.57	Met	
Performance Funding		Program Year			
		12-13	13-14	14-15	
35	Number of Degrees and Certificates	51	43	47	
36	Number of Degrees and Certificates Native Hawai‘i an	5	3	1	
37	Number of Degrees and Certificates STEM	51	43	47	
38	Number of Pell Recipients	43	44	56	
39	Number of Transfers to UH 4-yr	15	14	14	

Part VI. Analysis of the Program

1. Alignment with mission

We are in perfect alignment with both the program and college's mission. Specifically, we are in alignment with the following college mission statements:

- prepares students to meet rigorous associate and baccalaureate requirements and personal enrichment goals by offering high quality liberal arts and other articulated transfer programs.

(We have had approximately 80 students who have moved from KapCC's IT Program to UHWO's BAS in IT over the past 3 years.)

- delivers high quality 21st century career programs that prepare students for rigorous employment standards and to meet critical workforce immediate and long-term needs and contribute to a diversifying state economy.

(Our students are sought after in the local IT community. Some students are even hired before graduation (much to our consternation as we would like them to graduate, too).

- prepares students for lives of ethical and social responsibility by offering opportunities for increased service-learning and community engagement.

(We offer service learning opportunities in several of our IT courses. In fact, our internship course--ITS 293 requires that students intern in an IT capacity somewhere in the community. This requires that both students and faculty remain connected to the community. This, along with our IT advisory board, assures substantial community involvement. The IT program faculty are actively working to enhance and expand service learning opportunities for our students.)

- uses human, physical, technological and financial resources effectively and efficiently to achieve ambitious educational goals and generate a solid return on the public's investment for a sustainable future. *(We have both a robust AS and APC program with over 150 majors using only 5 full-time faculty, 4 networked computer classrooms/labs and 1 shared open lab. We do this in collaboration and cooperation with the other BLT programs and consistently do so under shrinking budgets. We continue to improve and expand our program without any increase in faculty or resources)*

- builds partnerships within the University and with other educational, governmental, business, and nonprofit organizations to support improved lifelong learning.

(We have a strong articulation agreement with UHWO and have nonprofit organizations, many local small to large businesses and government organizations connected to the program via our IT Advisory Board and IT Internship Hosting programs.)

- uses ongoing cycles of planning, best practice research, budgeting, implementation, assessment, and evaluation to drive continuous program and institutional improvement.

(We are currently compliant in assessing all of our Program Learning Outcomes as well as our Course Learning Reports. We have revised over 80% of our curriculum within the past year and are working on the remaining 20%).

In addition, we are in full alignment with our own mission:

The primary Information Technology (IT) program student focus is career preparation with three major emphases:

- insuring that our graduates possess the necessary IT skills and knowledge to enter the workforce upon graduation, *(our graduates get full time IT positions in both the public*

and private sectors. We receive very favorable comments from their employers tell us our students are well prepared for their work.)

- preparing students and graduates to move seamlessly and successfully to UH Manoa, UH West Oahu, and other four year institutions, *and (A significant percentage of our students have moved from KapCC to UHWO.)*
- providing lifelong learning opportunities for Hawai'i's workforce that are designed to improve workforce skills and career progression and in a manner that is convenient to the incumbent workforce. *(Our APC is designed and offered at a time to allow for current IT workforce members to upgrade their skills by taking 1-3 advanced level IT courses per semester.)*

2. Current Situation

Internal

Demand

Demand Indicator for the Information Technology Program is "Cautionary." While the data has not changed significantly from last year when we were rated "Healthy," the formula has been changed. We have experienced a 5% change is student numbers and 3% change in County Positions since last year. If the statewide positions number was used, the program would still be rated "Healthy." The program continues to grow and expand over the long term. Overall, demand remains strong.

In order to (continue to) meet Demand indicator numbers for our program, professional counseling and academic advising services must be available to prospective and continuing students year-round, including during the summer. The counselors meet with new, transfer, and prospective students through student orientations, appointments, and through phone/email contacts to ensure timely career exploration, student development counseling and enrollment into applicable courses. These services assist students in developing accurate academic plans based on realistic major, transfer and/or career choices. Counselors also assist students by removing barriers to progress by connecting students to appropriate resources including referrals to the Mental Health counselor, Disability Support Services, Financial Aid, Single Parents Program, etc. Our program requests hiring counselors during the summer to provide these essential services for students. We also request an on-duty coordinator to manage the summer classes, provide advising, and manage changes to the Fall class schedule and staffing over the summer months. Our program has one 11-month faculty member who could perform these functions as part of his summer duties.

Efficiency

The program is rated “Healthy” in terms of efficiency. The program's classes enjoy a high fill rate, showing that it has been successful in matching the number of courses and sections offered to the true demand for those classes. Counselors and faculty have worked cooperatively to both recruit students and match them with appropriate courses. The reported FTE faculty (5) includes four who teach ITS, and one who has taught primarily ICS courses. If only the IT faculty were counted, the ratio would be a little higher than that reflected in the data. Five FTE Faculty is one short of full staffing for the program. One additional faculty member was hired in January 2016 and one full-time position was transferred to Arts and Sciences along with the ICS NS courses. Two full-time faculty are currently on leave, so our effective staffing level is 4.

Effectiveness

Effectiveness indicators, while mixed, point out areas in which the program can improve, and reflect that some students are still not adequately prepared for the rigors of the IT field. The Successful Completion rate of 73% shows no improvement from the year before; neither withdrawals nor Fall to Spring persistence changed significantly. Fall to Fall Persistence is up, but Degrees and Certificates Awarded fell significantly. This can be attributed as least in part to the shortage of one full-time faculty member, the resulting increased reliance on lecturers, and the added work and stress on the remaining full-time faculty. In response, the program will continue to prioritize the filling of the vacant IT faculty position. The program will also continue efforts to provide tutoring services in the newly-renovated Kopiko Learning Community which was designed to foster interactive learning and facilitate access to tutors and instructors. Unfortunately, budget deficits have moved the program backwards with regard to both staffing and tutoring. With the new fiscal year, efforts will be renewed to restore and increase funding in both of these areas.

The number of withdrawals is most likely a reflection of the effectiveness of our counseling services, getting students out of classes they are having trouble with. ICS 100 and ICS 101 are now included in these numbers though not all students in these courses will be IT majors; and these courses have historically been labeled as "Gatekeeper" courses as success rates for these students often fall below the 70% mark.

Two other efforts to address the effectiveness of the program are funding for a counselor and also an IT program coordinator over the summer months. Summer is when many students make their plans for the coming year and reach out for advising, whether they are taking summer classes or not. The availability of a counselor and coordinator during this time will help students pick the right majors and the right classes, increasing persistence.

To increase retention and completion of our students and to (continue to) meet Effectiveness indicators, professional counseling and academic advising support is crucial year-round including during the summer. This support includes, but is not limited to, outreach methods such as classroom visits, eblasts, website, and advising sheet updates. Counselors have strong connections with advisory boards, industry, and 4-year institutions in order to provide accurate information to students as they make informed choices transitioning to careers and higher level degrees. Our program requests hiring counselors during the summer to provide these essential services for students. We also request an on-duty coordinator to manage the summer classes, provide advising, and manage changes to the Fall class schedule and staffing over the summer months. Our program has one 11-month faculty member who could perform these functions as part of his summer duties.

Distance Education

The Distance Education section reflects courses in both the ICS and ITS alphas. The program typically offers three to four ICS 100 and ICS 101 courses online per semester as well as one ITS course per semester by distance. The demand for these online courses is high; however, their level of difficulty is also high. Studying technology-heavy courses using technology at a lower-division level can be extremely challenging. The lower numbers this year simply reflects a lessening in demand. As the economy has improved, registration has decreased.

Alignment with mission: Strengths and weaknesses based on analysis of data.

Currently, the Information Technology program's operation is nearly in alignment with its mission. Although it has taken several years to get to this place, we are striving our very best to stay the course.

Our program's three main missions are: 1) insuring that our graduates possess the necessary IT skills and knowledge to enter the workforce upon graduation, 2) preparing students and graduates to move seamlessly and successfully to UH Manoa, UH West Oahu, and other four year institutions, and 3) providing lifelong learning opportunities for Hawai'i's workforce that are designed to improve workforce skills and career progression and in a manner that is convenient to the incumbent workforce.

While our placement rate is currently 44.44%, we believe we can do better. It will always be somewhat problematic to place our "C" students into upwardly mobile positions, it is still possible to place them into entry level jobs where they can learn and grow. Our "A" and "B" students have little trouble in placement; for example, we've placed graduates in C&C Honolulu, State of Hawai'i , and US Federal positions regularly. We need to become healthier.

We need to better help our struggling students become more proficient IT workers. We are hopeful the new student placement officer and Web site will help in this area.
The SLO assessment will assist us in examining program and course outcomes. The assessments will be used to identify areas where we can increase proficiency in basic knowledge concepts, theory, and process and proficiency in application skills. This will lead to our students being more competitive in the marketplace.

For Mission #2, we have had some difficulty getting our AS IT students articulated with programs at four year institutions in Hawai'i . We have made several overtures to UH Manoa's Shidler College of Business's Information Technology Management (ITM) Program. However, for various reasons, they have not accepted our students' course work as we have always hoped for. At this time, our IT courses remain electives and do not fit into their requirements.

However, we have made great strides in developing an articulation agreement with UH West Oahu. We have designed and articulated this third year APC in Information Technology that "seamlessly" transfers to UHWO. In addition, we are negotiating a second transfer line with UHWO that would allow our students to pursue a BAS in Information Security and Assurance. Changes in staffing at UHWO have made this second articulation more difficult, and so far we have been unsuccessful in reaching an agreement, but we continue to work in this area.

For Mission #3, we are always updating our curriculum to reflect upgrades and trends in the industry. All courses teach the very latest in software tools. We are constantly keeping the pulse of industry and provide the most current applications that our budgets allow. In addition, we have created short tech-specific certificates that attract people already in the workforce to come back and get a skills upgrade. In fact, we have many working IT professionals in our classes. We have certificates of competence in: programming, database administration, help desk support services, and as of Fall 2016, Cybersecurity. We have also striven to schedule these courses in such a way to allow completion of the certificates in two semesters whenever possible.

Evidence of Quality

There are several factors that would indicate a quality program: faculty with higher education credentials—minimum bachelor's degree, most with master's degree, and two with doctorates, many also with professional industry certifications; currency of program technologies; expansion to BAS; and even IT graduates' GPA.

As stated earlier, we have made a very concerted effort to maintain technological currency in our program. Both software and hardware are kept up to provide students with learning

opportunities using the products they would most likely find in the workplace. This, too, demonstrates a quality program.

As technology changes and grows, so do the demands for increased training. This additional training almost always rests on the foundation of earlier, legacy technologies. Ultimately, the curriculum grows and we are forced to create a new pathway for IT workers who want to continue their studies. To this end, we have worked to develop an Advanced Professional Certificate that, along with our AS in IT, will transfer wholly to UHWO into their BAS with a Concentration in IT Program as well as UHWO's new BAS in Information Security and Assurance. This expansion also reflects a quality program, a program that is responsive to community and industry needs and grows at an appropriate rate.

Our IT graduates have been steadily improving, I believe, as a result of our tutoring/mentoring efforts. Unfortunately, as our tutoring budget has been drastically reduced, so has the number of students we've been able to service.

Evidence of Student Learning

Resource Sufficiency

Although we have just recently hired 1 additional IT faculty, our 3rd year program has gained in popularity and students opt for the UHWO BAS transfer option. We are seeing an increase in enrollment that may require additional faculty positions "down the road." These are advanced specialized ITS courses, and so it is difficult to find and keep faculty to teach them. The college needs to recognize this in its hiring and salary decisions if our 3rd year program is to continue.

In any case, current faculty need to constantly keep up with trends in technology. To that end, the college needs to support these efforts through earmarked professional development funding for faculty to learn the latest technologies. In addition, equipment and software resources need to be maintained. Industry average is a 3 year cycle for both hardware and software. If we are to provide training for 21st Century IT workers, we need to train our students with 21st Century IT products. Nothing less will suffice. To this end, we are interested in learning how we might attach a "supply fee" or "technology fee" to courses to help offset the College's expense in funding these expenditures over the long haul.

Although there has been a marked surge in distance education courses both offered and taken, the IT program has been hesitant to jump head first into this arena for fear of loss of quality in student learning. The intrinsic difficulty in learning much of the highly technical skill set of our courses plus the current limitations of distance education delivery have acted as huge "red

flags" for our program distance education development. Advances in instructional delivery and support need to be embraced and supported by both the College and Program for the IT Program to move confidently into this area. We welcome and look forward to the time when these resources are made available. The newly-installed Netlab+ virtual lab environment will help in this area.

If we are to support our current students and hopefully grow the program, we need to be sure to provide students with access to the necessary resources to be successful. These resources include, but are not limited to: a comfortable learning environment both in the classroom and in an "open learning" space; access to faculty and mentors for help and clarification; access to community resources for cultural foundation and growth.

Perkins

The program met 4 of the 6 Perkins goals. Completion is one area where goals were not met, not surprisingly given cuts to peer tutoring, loss of staff, and increased dependence on adjunct faculty. Student placement remains an area for continued focus and in need of improvement. The anticipated hiring of a job placement officer for the college is expected to help in this area.

External

Counterintuitively, enrollment in the program remains strong despite the recent improvement in the local and national economies. Transfer to the UHWO BAS IT program also remains strong. Information Technology continues to be a high-demand and growing field in the state as in the nation, and in the world, for that matter.

Hawai'i Planning Context:

1. **Globalizing Economy and Environment**
    a. Economic and technological forces are causing American business and industry to retrain current employees and support the training of future employees with new skills and attitudes for a knowledge-intensive global economy. At the same time, deterioration in the global ecosystem requires heightened attention to ecological sustainability on campus and in the community. Opportunities for "greening" existing certificate and degree programs as well as service-learning and other student learning activities need to be pursued.
    b. The program's Advance Professional Certificate was designed in part for professionals wishing to retool or refresh their skills. We continue to adjust and expand our course offerings under the APC program, including advanced topics in emerging technologies.
2. **Escaping the low wage, low skill trap**

a. In terms of purchasing power, Hawai‘i’s per capita income is approximately 75 percent of the U.S. average. In 2003, Hawai‘i ranked 43rd in the nation for growth in average pay; 47th in industrial diversification; 49th in home ownership; 50th in long-term employment growth, and 50th in involuntary part-time employment (2003 Development Report Card, Corporation for Enterprise Development). The alternative to losing highly educated Hawai‘i youth to the U.S. mainland is to develop the capacity of local business and enterprise to generate new, high-valued goods and services and higher-skilled jobs. The combination of an overall labor shortage, the “brain drain” of Hawai‘i’s better educated youth, and the increasing labor force participation by new immigrants, is expected to create an economic crisis within the next 5-10 years. Hawai‘i is not preparing enough of its people for higher-skilled jobs (nursing, health, education, hospitality, tourism, social work, and others) in the current economy and in the knowledge-intensive science and technology economy it hopes to create.
b. We continue to update our courses and the currency of our instructors in order to impart our students with the skills required to enter the technology economy. We validate this with our IT Industry advisory board on a yearly basis.

3. **Emerging Opportunities Identified – Need for Institutional Innovation**
   a. For the state of Hawai‘i, six emerging growth sectors have been identified: a) Life Sciences/Biotechnology; b) Information Technology; c) Film and Digital Media; d) Dual-Use Technologies related to the Defense industry; e) Diversified Agriculture; Technology integration in Hospitality and Tourism. Campuses need to integrate innovative curriculum, engaging pedagogies, and appropriate and advanced technologies for enhanced student learning.
   b. As Information Technology continues to be a growth sector, demand for the Information Technology program and classes remains strong. We continue to grow and expand the AS program, such as with the recent addition of Cybersecurity as a required knowledge pillar within the program.

3. Assessment Results for Program SLOs

Program Learning Outcomes:

1. Design and develop software solutions for contemporary business environments by employing appropriate problem solving strategies.
2. Configure and administer database servers to support contemporary business solutions.
3. Configure and administer networks to contribute to contemporary business solutions.
4. Design, and develop web solutions to address contemporary business objectives.
5. Learn future technologies through acquired foundational skills and knowledge and employ them in new business environments.
6. Practice communication, problem solving and decision-making skills through the use of appropriate technology and with the understanding of the business environment.
7. Demonstrate knowledge of current information, network, and cyber security issues and implement best practices in mitigation and recovery.

(effective Fall 2016)

	Year/Semester of Assessment
PLO #1	Fall 2015*
PLO #2	Fall 2014
PLO #3	Fall 2013
PLO #4	Fall 2009
PLO #5	Spring 2016
PLO #6	Spring 2016

Changes made as a result of findings

In Fall 2013, SLO #3 was assessed.

Take-away/plans for improvement:

1. The grading rubric was questioned, as at least one student who did not appear to have achieved the learning outcome nonetheless received a passing (meets expectations) grade (26/35 or 74%). As a result it was suggested that the grading rubric and weighting of the various components of the exercise be reexamined.
2. The value of simulation tools like Packet Tracer and the ability to simulate networks and network devices within a computer environment was reaffirmed. It was suggested to explore other simulation tools that might be available.

Several students did not document their submission in exact accordance with the instructions, i.e. naming conventions. It was suggested that students could benefit from more training in precise documentation and in following instructions/directions more precisely. This exercise and similar exercises could be a vehicle for that training

In Fall 2014 the IT faculty designed and implemented a rubric to assess PLO #2.
Take-aways/plans for improvement:

1. Make sure students have a clear understanding of the instructions. One instructor pointed out that there was some ambiguity in one of the steps.
    a. Instructor will rewrite the instructions to take out ambiguity.

2. Assess their prior knowledge required to complete the project.
    a. Instructor will provide a review of prior class and relate topics with current assignment.

3. Some students did not capture screens for grading. Need to find out why.
    a. Instructor will survey students to find out what kind of difficulty they had in capturing screens to turn in. Give short tutorial before assignment.

In Spring 2015, SLO #4 was assessed.

Take-aways/plans for improvement:

a. Students should include a business problem statement as either part of their documentation or reflection to determine if a business problem is truly addressed
b. Instructor should require milestones through the project to help correct any development issues
c. Change the sub SLOs to something like: "To what extent has…." rather than "Has…" to avoid an either/or assessment and give assessors more leeway in the process.

An assessment of SLO #1 was assigned and planned for Fall 2015. Unfortunately, the faculty member responsible left on leave without completing the assessment or providing the necessary artifacts.

Part VII. Tactical Action Plan—Business, Legal and Technology Education Department

1. Department Action Plan

The Business, Legal, and Technology Department does not have a current action plan.

Mission Statement. The mission of the Business, Legal and Technology Education Department of Kapi`olani Community College is to provide the opportunity for access to quality programs designed to meet the needs of students, industry, and community. Upon successful completion of these programs, students should possess the academic foundation and practical skills to apply quality accounting, information technology, marketing and paralegal skills essential in a rapidly changing world.

2. Program Action Plan

Long term plans for the Information Technology program are guided by the college's strategic plan. The actions indicated in this report provide measures which will align with the college's strategic plan.

Action plans include:

- 100 students completing the new Cybersecurity Certificate of Competence by 2020.
- Offering all of the Certificate of Competence in Cybersecurity courses online by 2020.

- This goal aligns with strategy A1B of Performance measure 1: “developing better communication technologies and appropriate distance learning courses and pedagogies” and A4, “Increase certificate and degree completion by Native Hawaiian students from 64 to 105 per year.”
- Also aligns with B5A: “Increase the number and improve the quality of alternative delivery classes: online classes; hybrid classes, team-taught classes and learning communities.”
- Further aligns with E2A: “Increase the quantity and quality of courses and programs available to students through online, distance and off site learning methods.”
- We made a major stride in this direction with the installation of the Netlab+ virtual lab environment under the recent TAACCCT grant.

- Faculty Professional Development: 2 professional development events/conferences per year per faculty member over the next 5 years.
  - Aligns with E1: “Recruit, renew, and retain a qualified, effective, and diverse faculty, staff, and leadership committed to the strategic outcomes and performance measures. Increase professional development funding by three percent per year. . .”
  - Also aligns with E2: “Strengthen faculty and staff development to increase by one every two years the number of programs that can be completed by students in underserved regions via distance and off-site learning.”
- Continually adapting our curriculum to emerging technologies such as mobile devices, robotics, etc.
- Continued partnership with UHWO, and development of a new articulation agreement in Information Security Assurance, a very "hot" area in IT.
  - Collaboration and articulation with UHWO is consistent with A4K and B4L, “Develop, evaluate, and improve articulation agreements with UH system campuses.”
  - Also aligns with D1D: “Strengthen workforce development relationships with UHM, UHWO, and UHH to explore 2+2 degree partnerships.”

- Collaboration with other IT programs to incorporate institutional best practices. Continue to work with UH System office to develop a system wide program on cyber security. The program will also continue to strengthen regional ties through organizations such as MPICT (Mid Pacific Information and Communications Technology initiative) and CyberWatch West. We are working to implement the system-wide department of labor TAACCCT grant in cybersecurity. This involves updating and creating curriculum to increase focus on cybersecurity, as well as the installation of a NETLAB+ virtual lab environment in support of cybersecurity and other topic areas.

- Continued recruitment efforts through a reach down into our service courses (ICS) as well as through other means.

- Faculty and counselors will continue efforts to improve retention/persistence through tutoring, counseling and other interventions so that more of our students are able to realize their goals of working in the IT industry. This will require funding for student tutors, summer counseling, and summer IT program coordination/advising.

- Collaboration with the IT Industry Advisory Council and a review of occupational codes related to this area of specialty to the program will ensure that its offerings accurately reflect the current industry requirements.

- Partnerships with commercial, professional and educational organizations such as CompTIA, Oracle, Microsoft, and VMware, EMC, and Cisco Academy.

Part VIII. Resource and Budget Implications

Information Technology Program Resource Requirements

The program will seek restoration of funds for tutoring for both IT and ICS classes in the Kopiko 101 open computer lab. The estimated amount for this is $15,000-20,000.

Renewing memberships to Microsoft Dreamspark and ORACLE Academies will allow for the use of current cutting-edge software development tools in the classrooms and by the students. The software is free for students because of the memberships. The cost for both memberships is $2,000. Microsoft Office upgrades for all classrooms, lab, and instructor workstations are necessary to continue to provide training in current business applications with a cost of approximately $65 per license. The program requires approximately 165 units for all classrooms, labs, and instructor workstations. Total cost for Microsoft Office upgrade is $10,725 every two to three years. Instructor training to use Oracle specific tools is done every other year and training is required this year for about $4,000.

The currency of computer equipment is critical for the IT Program. Faculty office computers should be upgraded on a regularly schedule every two to three years. The cost for the scheduled upgrades for this year (2015) will be $12,000. It should be noted that the need for regular hardware/software upgrades is critical for the IT Program, different from other programs that also use computers. Computer hardware and software are the necessary tools of the program, as stoves and refrigerators are necessary for the Culinary Arts program or hospital beds for Nursing or other health services fields. The IT program will seek funding for these initiatives through a combination of campus budgets and external sources (such as Perkins grants).

Likewise, the currency of faculty technological expertise is also critical to the quality of the Information Technology program. Funding for travel, conference fees, and training fees is essential to maintaining our program as a 21st century Information Technology program. Minimum $2000 per full-time faculty member per year.

The Kopiko Learning Community Center includes a computer hardware and networking lab which was originally outfitted using Perkins funding over 5 years ago. This equipment is essential to the hands-on active learning experience that the program offers students. This equipment requires periodic upgrading and replacement. Additionally, consumable items such as network cable and RJ45 clips need to be replenished on a regular basis. The IT program requires $2000 funding annually for these items.

The program is pursuing other funding opportunities to create a smooth IT vendor certification process that would easily allow highly qualified students in our program to additionally acquire valuable IT vendor (e.g., Microsoft, Oracle, CompTIA) certifications that would enhance their employability. In addition, we are looking at alternative ways to acquire high-end equipment that would give students exposure to emerging technologies in our new lab.

IT Program faculty have been working to implement a flipped classroom model in some classes. Toward that end, 6 copies of Camtasia at $200 each are requested for content development purposes.

Oracle Self-Study materials @$1375

The program recently purchased a Netlab+ virtual lab environment from the Dell and NDG companies using TAACCCT grant funds. This equipment required hardware and software maintenance which is provided on an annual fee basis. The grant funds will cover these costs until the end of the grant in approximately Fall 2017. At that point, campus funding will be required in order to continue the operation of this valuable pedagogical tool.

Departmental Resources:

Apart from the specific resources related to the program, there are department-wide activities requiring resources to generally support all of the programs in the department. The Business, Legal and Technology Education Department (BLT) will seek a combination of campus funds, general funds (faculty investment of time and energy), special funds, grants, private donations and other campus support services to ensure the achievement of our planned outcomes.

Marketing Materials, $500 per year

Accrediting Commission for Business Schools and Programs (ACBSP) Membership Dues, $1350 per year.

Student Engagement Activities – Approximately $500 per year

Tracking certificates, degrees, transfers – to be determined

Student tutors, peer mentors (Restoration of funding plus additional funding for renovated lab and classrooms extended hours of usage – See reference to BLT Technology Plan below

Student Fee Collection – College and departmental support; to be determined

Equipment/Supplies – See reference to BLT Technology Plan below

Professional Development – Approximately $5,000 per program (Accounting, Information Technology, Marketing and Paralegal) per year