

Kapiolani Community College

2011 Annual Report of Instructional Program Data

Information Technology

Program 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,
- 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.

The current A.S. program follows three out of the five pillars in the Association of Computing Machinery (ACM) IT curriculum: Database Development, Programming, and Networking. We chose only three because we have striven to work within the traditional 60 credit A.S. format. We chose these three to develop more fully as they are the oldest and cornerstones of a foundation in IT. Our new Advanced Professional Certificate, consisting of six 300 level IT courses, more fully fleshes out the Web Applications pillar of the ACM IT curriculum. Coupled with minor adjustments to many of our 100 and 200 level courses to include more human-computer interface concepts, we have more fully included all five pillars of the ACM IT curriculum.

Part I. Quantitative Indicators

Overall Program Health: **Healthy**

Majors Included: DBA,PROG,IT

Demand Indicators		Program Year			Demand Health Call
		08-09	09-10	10-11	
1	New & Replacement Positions (State)	182	48	45	Healthy
2	New & Replacement Positions (County Prorated)	45	17	39	
3	Number of Majors	90	105	138	
4	SSH Program Majors in Program Classes	783	723	1,374	
5	SSH Non-Majors in Program Classes	423	381	3,414	
6	SSH in All Program Classes	1,206	1,104	4,788	
7	FTE Enrollment in Program Classes	40	37	160	
8	Total Number of Classes Taught	23	20	78	

Efficiency Indicators		Program Year			Efficiency Health Call
		08-09	09-10	10-11	
9	Average Class Size	17.5	18.4	20.5	Healthy
10	Fill Rate	80%	87%	93%	
11	FTE BOR Appointed Faculty	4	6	5	
12	Majors to FTE BOR Appointed Faculty	22.5	15	27.6	
13	Majors to Analytic FTE Faculty	36.3	49.7	16.2	
13a	Analytic FTE Faculty	2.5	2.1	8.5	
14	Overall Program Budget Allocation	Not Reported	\$556,872	\$566,763	
14a	General Funded Budget Allocation	Not Reported	\$556,872	\$566,763	
14b	Special/Federal Budget Allocation	Not Reported	\$0	\$0	
15	Cost per SSH	Not Reported	\$504	\$118	
16	Number of Low-Enrolled (<10) Classes	2	2	3	

Effectiveness Indicators		Program Year			Effectiveness Health Call
		08-09	09-10	10-11	
17	Successful Completion (Equivalent C or Higher)	76%	83%	72%	Healthy
18	Withdrawals (Grade = W)	41	20	168	
19	Persistence (Fall to Spring)	75%	71%	76%	
20	Unduplicated Degrees/Certificates Awarded	40	14	41	
20a	Degrees Awarded	15	14	16	
20b	Certificates of Achievement Awarded	1	1	2	
20c	Academic Subject Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	43	0	60	
21	Transfers to UH 4-yr	5	1	7	
21a	Transfers with credential from program	1	1	3	
21b	Transfers without credential from program	4	0	4	

Distance Education: Completely On-line Classes		Program Year		
		08-09	09-10	10-11
22	Number of Distance Education Classes Taught	0	0	13
23	Enrollment Distance Education Classes	0	0	301
24	Fill Rate	0%	0%	93%
25	Successful Completion (Equivalent C or Higher)	0%	0%	62%
26	Withdrawals (Grade = W)	0	0	48
27	Persistence (Fall to Spring Not Limited to Distance Education)	0%	0%	68%

Perkins IV Core Indicators 2009-2010		Goal	Actual	Met
28	1P1 Technical Skills Attainment	90.05	100.00	Met
29	2P1 Completion	44.50	58.33	Met
30	3P1 Student Retention or Transfer	55.50	93.75	Met
31	4P1 Student Placement	50.50	53.33	Met
32	5P1 Nontraditional Participation	N/A	N/A	N/A
33	5P2 Nontraditional Completion	N/A	N/A	N/A

Last Updated: November 9th, 2011

[Glossary](#) | [Health Call Scoring Rubric](#)

Part II. Analysis of the Program

Demand

Demand Indicators for the Information Technology (IT) Program are very healthy. This is in direct response to several factors: The IT Program has made great efforts to push the program to the next level, adding an Advanced Professional Certificate (APC) and an articulation agreement with University of Hawai'i West O'ahu (UHWO), providing students with a clear pathway to a Bachelor of Applied Science (BAS) in IT. This was done in response to federal labor data that indicate businesses are looking for IT workers with more advanced skill sets. Students have responded in kind as evidenced by increasing enrollment in the Associate in Science (AS) program as well as the new APC. However, as was the case last year, these data do not reflect an additional 48 certificates of completion and Advanced Professional Certificates conferred upon IT students. The missing data are the result of administrative error in recording these certificates which has now been identified and corrected. If included, this would no doubt show an even healthier program than what is reflected in the given data.

Efficiency

The program is rated "Healthy" in terms of efficiency. The program enjoys a 93% 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 and match students to appropriate courses. The reported FTE faculty (5) includes four who teach ITS and one who teaches only ICS courses. Therefore, our FTE faculty to student ratio is, in reality, a little higher than that reflected in the data. However, when looking at the Analytic Faculty to student ratio, it would seem a fairly accurate number (16.2).

Effectiveness

Effectiveness indicators, while "Healthy," are still not ideal. The Successful Completion of 72% reflects increased enrollments, with some students not adequately prepared for the rigors of the IT field. This is why the program will continue its efforts to provide tutoring services for students. The large increase in withdrawals is most likely a reflection of including ICS 100 and ICS 101 students in the numbers (some of whom become IT majors, in the numbers). ICS 100 and ICS 101 have historically been noted as "Gatekeeper" courses, as success rates for these students often fall below the 70% mark. However, the number of certificates, degrees awarded, and transfers have improved nicely, reflecting increased enrollment, increased number of certificates offered (new APC), and new pathways for transfer (UHWO articulation).

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 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 challenging (much like an immersion Mandarin 101 class).

Perkins

Perkins Indicators are excellent. The program has met and exceeded every goal. Student placement, however, remains an area for continued focus and improvement.

Part III. Action Plan

- Scheduled renovation of the Department's computer lab in the Kopiko building provides opportunities to enhance technology applications and collaborative work spaces to improve student engagement and learning.
 - The design of the computer lab is consistent with statements in the College's Strategic Plan that both describe where the IT program currently is and would like it to be. From the "Functional Statement": The College offers 21st century career programs in business and information technology, culinary arts, hospitality, legal education, nursing and health sciences, including emergency medical services. The college is developing emerging technology programs in new media arts, exercise and sports science, biotechnology, eBusiness and information technology.
- The program will continue to work with UHWO to fully implement the recently approved articulation agreement that will provide a career ladder for students.
 - Collaboration and articulation with UHWO is consistent with Goal 3 and selected Objectives (3 and 4) of the Strategic Plan: **Goal 3 To Build A Learning, Partnering, and Service Network for Workforce and Economic Development**
- To collaborate with other IT programs and to incorporate institutional best practices, the program will continue to strengthen regional ties through organizations such as MPICT (Mid Pacific Information and Communications Technology initiative).
- The program will continue 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.
- Through 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.

Part IV. Resource Implications

The program will seek funding to continue to expand tutoring for both IT classes and in the Kopiko 101 open lab. The estimated amount is \$12,000-15,000. Renewing memberships to MSDNAA and ORACLE Academies will allow for the use of current cutting edge software development tools in the classroom 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 is necessary to continue to provide training in current business applications: cost is 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. The upgrade scheduled this year for one lab is \$32,000. The IT program will seek funding for these initiatives through a combination of campus budgets and external sources (such as Perkins grants).

The program is requesting one additional faculty member to replace one faculty who has permanently relocated to another unit within the college. The new recruit is needed to maintain program support at all levels and for expansion of our third year advanced certificate.

Program Student Learning Outcomes

a. What are the program 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 environments.
3. Comprehend and resolve common desktop and network issues.
4. Analyze common business functions and identify, design, and develop appropriate information technology solutions (in web, desktop, network, and/or database applications)
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

b. What outcomes were assessed in the reporting period?

Fall 2010

(none--IT Program Coordinator was ill)

Spring 2011

Comprehend and resolve common desktop and network issues.

c. What were the results of the assessment?

Fall 2010--N/A

Spring 2011

Met Program SLO expectations.

d. What improvements were planned based on the results?

Fall 2010--N/A

Spring 2011

Increase focus on technical communications and terminology in first-year IT classes.