AUTHORIZATION TO PLAN (ATP) AN ACADEMIC PROGRAM (Revised 06/12/07)

e complete all sections with an **emphasis** on items 7, 8, 9 and 10. The ATP is not to exceed 5 pages.

1. **School/College and Department/Unit**
   Kapi`olani Community College/Business Education
2. **Chair/Convener of Planning Committee**
   Dr. Steven A. Singer
3. **Program Category: X New ___Modified ___ Interdisciplinary**

4a. Degree or Certificate Proposed:
Advanced Professional Certificate (APC) in Information Technology

4b. List similar degrees or certificates offered in UH System:
HonCC/CENT/APC

5. Planning

a. Planning period (not to exceed one year or reapplication is necessary)
   Sept 2009—Sept 2010

b. Activities to be undertaken during the planning phase
   Negotiations with University of Hawaii at West Oahu (UHWO) on an articulation agreement for Kapi'olani Community College (KapCC) Information Technology (IT) students to acquire a Bachelors of Applied Science (BAS) with a concentration in Information Technology. Curriculum proposals at KapCC for APC in IT. Revision of AS in IT degree. Creation of IT courses at 300 level for APC.

c. Submission date of program proposal
   September 2009 for new APC, modified AS, and 300 level course proposals.

d. Workload/budget implications during planning period
   None.

6. Program Description (Objectives and relationship to campus mission and strategic plan)

This Advanced Professional Certificate (APC) provides a pathway for students in our IT program to expand their IT skill sets, thereby making them more competitive in the labor force, as well as provide a pathway to a Bachelor's of Applied Science degree at UH West Oahu. Additionally, the APC and BAS would support the State's workforce need as noted by research documents from the University of Hawaii System (VP for Planning Office) as well as US Bureau of Labor, and Hawaii Workforce Informer (HIWI). See item 8 below.

According to the 2nd Decade Project headed by Linda K. Johnsrud Vice President for Academic Planning & Policy, East and Ewa Oahu will have the two largest increases in population in the state (projected 54,315 and 72,721 respectively through 2020). In addition, each area is identified as having either a very high or high need for post secondary education. In particular, while the need for computer related jobs that need an A.S. degree would seem to be almost met through 2012 (projected vacancies=96/projected annual UH graduates=93) by our current computer and IT programs, there is a serious projected shortfall of bachelor degree graduates in computer related fields for positions requiring a bachelor's degree (projected vacancies=395/projected annual UH graduates=139) (Slide #48).

This APC is consistent with the following campus mission statements:

- prepares students to meet rigorous employment and career standards by offering 21st century career programs.

- uses human, physical, technological and financial resources effectively and efficiently to achieve ambitious educational goals.
- builds partnerships within the University and with other educational, governmental, business, and non-profit organizations to support improved learning from preschool through college and lifelong.

Furthermore, this APC is consistent with statements in the College's Strategic Plan that both describe where the IT program currently is and places where the College would like to move into. From the "Functional Statement" on page 2 (emphasis by author):

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. New synergies bridging P-12 and college, including educational assisting, teacher preparation, Teaching English as a Second Language, and Service-Learning also hold promise for training tomorrow's teachers, locally, nationally, and internationally.

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**

3. Develop new degree programs (Associate, 3 year, and Baccalaureate) to meet the changing educational needs of our communities, with initial emphasis on a four year degree in Culinary and Hospitality Education.
4. Partner with other UH campuses to plan and develop four year degree programs, with initial emphasis on the health sciences and technology.

From the Action Strategies of Goal 3 detailed further in the document (page 18 onwards):

Objective 3:

- Develop new degrees based on relevant, exemplary models at other institutions.

Objective 4:

- Identify demand for four-year programs in health and technology.
- Establish a working relationship with UHM, UHWO, and UH Hilo to explore 2+2 degree partnerships.

7. Program Justification (Needs and Rationale. Include, as appropriate, internal and external factors driving need for this program; description of needs assessment; number of interested student per year; need for such a program in relation to workforce development, graduate studies, etc.)

The Information Technology field is always changing. New technology after new technology is developed, pushing both the economy and field of study forward. Unfortunately, most of what is newly developed does not simply supplant that which was. Instead, it adds on to it. The new technologies developed are based on older technologies.

Given the limits of a reasonable Associates in Science degree (approximately 60 credits), the only alternatives to increase the skill sets of students are: 1) make the degree unreasonable (e.g., 90+ credits) or 2) create a pathway for further study in the field that would lead to other credentialing (e.g., APC, 3+1,BAS). Clearly option 2 would be most beneficial for our students.

As noted in item 6 above, both Johnsrud and government studies have shown the workforce need for IT workers with baccalaureate degrees. The state is already doing a fairly good job of providing IT workers with AS degrees. This is why HCC's CENT program has already created such a pathway to UHWO for its students. However, HCC's CENT program is more hardware/network centric than KapCC's program. KapCC's IT APC will be more software centric offering six IT courses

of additional advanced content in: web applications, programming with database connectivity, and server installation and network security. These courses, as all other KapCC IT courses are practical, hands-on training coupled with industry standards, making them more immediately usable in the workforce than either the MIS or ICS programs at UHM, which are more theoretical in nature. Both UHWO and government workforce studies concur that IT workers with a broader skill set, including programming, web and database development and administration, and system integration in a business environment would be an excellent fit for UHWO's BAS program and the State's current and future IT workforce needs. Prof. Pai at UHWO is so convinced of this need he has suggested the creation of a third option for IT students seeking a BAS: a hybrid of the HCC and KCC BAS programs, allowing students to take IT classes at either community college to fulfill a third curriculum BAS option.

According to the US Bureau of Labor Statistics (See attached), Computer Systems Analysts, Database and Network Administrators, as well as Computer Programmers are occupations that: 1) require a Bachelor's degree, 2) have a Very High Median Annual Earning, and 3) are expected to grow between 8,000 to 63,000 positions between 2006 and 2016. This portends well for the IT industry as a whole. Further data from the USBL guide to Software Publishing suggests upwards to a 41% growth in these positions (see attached).

Statistics from Hawaii's own Department of Labor and Industrial Relations (2007) suggest a similar, though smaller, pattern here; Computer Systems Analysts and Network and Data System Analysts are both listed as requiring a bachelor's degree, having high pay ($62K+), and having a strong percentage growth (2—5%). When ranked by growth rate, these positions rank at the very top of careers requiring at least a bachelor's degree (see attached). Network Systems and Data Analysts are even listed in Hawaii's Hot 50 Demand Occupations (see attached). The Hawaii Workforce Informer (HI-WI) lists each of these positions as needing a bachelor's degree and having both very strong growth (8%--46%) and high pay ($53K--$79K).

KapCC IT advisory board and student interest in this BAS pathway has been very supportive. Both current and former students are eager to continue their studies in IT. While other BS and BA alternatives (UHM's ICS and ITM programs) accept very few of our students' credits toward completion of the bachelor's degree, UHWO's BAS degree would accept everything in completion of their bachelor's degree. In addition, because this a BAS rather than a BA or BS, students completing this program will have more applied experience. This is a great incentive for our students, who have little interest in having to take more courses than they need to. This proposal would save students both time and money in their efforts to further their professional development in information technology.

In a survey of over 700 students that Business Education serviced in 2007, 59 identified themselves as IT majors; 24 of the 59 (41%) stated that their academic goal was to receive a bachelor's degree. In addition, in a more recent survey of 99 current and recent graduates this August 2009, when asked if they would be interested in pursuing a bachelor's degree in IT, 76/99 responded affirmatively (58—definitely, 28—possibly). In addition, 91/99 liked the 2+1+1 format proposed (50—definitely, 41—possibly). There were, however, some "reasonable" concerns:

> The classes would have to be in the afternoon or on the internet. If the classes are offered during these times then I would enroll in the program.
>
> It would be a great way to continue in the UH system for my 4 year degree. I am somewhat concerned that UHWO is so far from KapCC, but I would still be willing to transfer there.
>
> This step would help people not wanting to go in to ICS but want to stay in the computer world while coming out of college with a 4 year degree.

8. Description of resources required

a. Faculty (existing and new FTEs)

Current human resources will be able to deliver the program as IT courses will be rolled out 1-2 per semester. These can easily be incorporated into the schedules of current faculty. Adjunct faculty will

be hired to fill behind current faculty assigned to teach new 300 courses, or, if qualified, may teach some 300 level courses.

b. Library resources (including an evaluation of current resources and an estimate of the cost of additional resources required)

No additional library resources will be required.

c. Physical resources (space, equipment, etc.)

Students in the APC will be using the same classrooms, equipment, and labs as students in our AS program. There are sufficient time slots available in our most used computer classrooms (Kopiko 102, 103 and 104) to accommodate the 1-2 additional classes per semester. To accommodate students who are already in the workforce, classes will be offered in times and modalities that allow them to continue their studies. Accessing resources in the computer lab should be easy after our renovations, scheduled to take place Summer and Fall 2010, finishing by Spring 2011.

d. Other resources required (staff, graduate assistantships, etc.)

(None)

9. Five-Year Business Plan. Provide a five-year projected budget for the program that includes:

a. Annual costs to implement the program

The only real costs to implement the program are the course costs. Initially, we estimate offering 3 courses per year at a human resource cost of $13,662 (9 credits X $1518 (Average--Lec Step B). Each year we will increase course offerings until we are able to offer all the necessary ITS courses for the APC by the end of the five year plan. In addition, all general education support courses are already available within the Arts and Sciences scheduled offerings.

b. Projected enrollment and estimated tuition revenue

Given interest and trends, we believe we can have 15--20 students in these 300 level courses. To fund the courses, we are proposing charging the standard UHCC tuition of $88/credit (starting Fall 2010) or $264/3 credit course. Given an average enrollment of 17 students, this would generate $4488 per class or $13,464 for the total 3 courses offered the first year, essentially covering the $13,662 cost for faculty.

This parallels the already demonstrated interest in a similar program at Honolulu Community College, which also charges regular UHCC tuition rates and has enrollments of between 15—20 students in their 300 level CENT courses.

[Special Approval: Instructor Approval]

20914	CENT 310	0	Network Security	4	A Tanaka	19

Prerequisite: CENT 270, CENT 253, and CENT 227.

20915	CENT 370	0	Integrated Network Application	4	S Dunan	15

Prerequisites: CENT 140, CENT 253, and CENT 227.

While HCC students have a clear pathway to continue their professional development through their 3+1 articulation agreement with UHWO, KapCC students currently have no easy pathway. Our current AS students could not qualify for HCC's 300 level courses without taking several other prerequisite courses; thus, having no available pathway to the BAS at UHWO. Our proposal would provide that pathway for both current and past KapCC IT AS students.

c. How will the program be funded?

Tuition revenues from classes of 17 students or more will pay for average fill behind adjunct faculty. If there is a shortfall in enrollment, the department will reallocate lecturer funds from existing allocations.

d. Does the current or proposed budget (Department/College/Campus) include funds or a request for funds for the proposed program? Please provide details. No.

e. Given a "flat budget" situation, how will the proposed program be funded?

Tuition revenues.

f. Mini Cost Revenue Template (Excel; top of next page)

ENTER VALUES IN HIGHLIGHTED CELLS ONLY					
YEAR	**FY2010-11**	**FY2011-12**	**FY2012-13**	**FY2013-14**	**FY2014-15**
PROGRAM COSTS					
Faculty w/o fringe	13,662 0.3 FTE	13,662 0.3 FTE	18,216 0.4 FTE	22,770 0.5 FTE	27,324 0.6 FTE
Other personnel costs w/o fringe	0	0	0	0	0
Library	0	0	0	0	0
Equipment/Supplies	0	0	0	0	0
Other	0	0	0	0	0
TOTAL Expenses	13,662	13,662	18,216	22,770	27,324
REVENUES					
Projected Enrollment	17	17	17	17	17
No. of Courses	3	3	4	5	6
No. of Credits	9	9	12	15	18
SSH	153	153	204	255	306
Tuition Rate/Credit	88/cr	97/cr	97/cr	97/cr	97/cr
Total Revenue from Tuition	13,464	14,841	19,788	24,735	29,682
Other Sources of Income	0				
TOTAL Revenues	13,464	14,841	19,788	24,735	29,682

10. Impact on current courses or programs.

The availability of the APC and subsequent BAS with a concentration in IT will give current students in the IT program an incentive to do well, perhaps even increase enrollments in the A.S. program as the munity recognizes the value of this professional development pathway to progress up the career ladder.

11. If this program is multidisciplinary, provide evidence of commitment for support from the colleges, departments, programs, and/or individuals expected to participate. N/A

Reviewed by: (*The ATP has completed the campus approval process prior to review by Council of Chief Academic Officers*)

Campus Chief Academic Officer:

Comments and Recommendations:

LOUISE PAGOTTO — Louise Pagotto — 9/8/09

Print Name — Signature — Date

Council of Chief Academic Officers (Systemwide Consultation):

Comments/Recommendations:

LINDA JOHNSRUD — Linda Johnsrud — 9.9.09

Print Name — Signature — Date

Chancellor: ☒ ***Approved*** ___ ***Disapproved***

LEON Richards — [signature] — 10/17/09

Print Name — Signature — Date

(Final signed copy is provided to the Vice President of Academic Planning and Policy for Program Action Report)