

HAWAI`I COMMUNITY COLLEGE
ANNUAL
INSTRUCTIONAL PROGRAM REVIEW
TEMPLATE

Information Technology

November 27, 2013

July 1, 2012 to June 30, 2013

Initiator: Robert Yamane
Writer(s): Annie Brown

Program/Unit Review at Hawai'i Community College is a shared governance responsibility related to strategic planning and quality assurance. It is an important planning tool for the college budget process. Achievement of Program/Unit Outcomes is embedded in this ongoing systematic assessment. Reviewed by a college-wide process, the Program/Unit Reviews are available to the college and community at large to enhance communication and public accountability.

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CERC Comments and Feedback (If you submitted a Comprehensive Program Review in 2011 or 2012, please complete this section)

CERC gave recommendations intended as suggestions for improvement. Provide a brief response to the suggestions made. i.e. Were suggestion(s) valid? Were change(s) made as a result of the suggestion(s)?

Program Description (Use the official description from catalog then give more in depth explanation of what the program does, who it serves and generally describe it's accomplishments)

The Information Technology program is a career-laddered, competency-based program that provides training in the use and support of business-related computer systems, data communication networks (including local area networks), and the development of business computer information systems using procedural, even-driven and object-oriented programming techniques.

The program includes a combination of business, computer, and information technology courses. Campus-based computer and networking projects, faculty supervised laboratories, and workplace internships provide hands-on experience designed to prepare students for positions in computer support, programming, network administration, or system development in a business information technology system. The program focuses on computers and information technology as tools to solve business problems.

Part I: Quantitative Indicators

NO ENTRY

Part II: Analysis of the Program

Alignment with College Mission and ILOs

Write a brief narrative describing the program and how it supports the College's mission and Institutional Learning Outcomes (ILOs).

College's mission:

Hawai'i Community College (Hawai'iCC) promotes student learning by embracing our unique Hawai'i Island culture and inspiring growth in the spirit of "E`Imi Pono." Aligned with the UH Community Colleges system's mission, we are committed to serving all segments of our Hawai'i Island community.

Program Mission:

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The Information Technology (IT) Program's Mission is to assist students to learn and develop skills, competencies, and values required by employers that are necessary to become contributing members of a technological society. The IT program directly supports these college imperatives: workforce development, community development, cultural competency, environment, healthy communities, and technology. The program provides students with the skills necessary for success in the business environment, the ability to work with others and to use teamwork in achieving workplace and community goals. The IT program focuses on teaching technological skills, enabling students to find jobs and advance the general ability level of the Hawaii workforce to handle the ever-changing environment caused by technological advances.

Describe how this program supports the College's mission.

The college mission states: "Hawai'i Community College (Hawai'i CC) promotes student learning by embracing our unique Hawai'i Island culture and inspiring growth in the spirit of 'E 'Imi Pono.' Aligned with the UH Community Colleges system mission, we are committed to serving all segments of our Hawai'i Island community."

As noted above, the IT Program provides members of the community the opportunity to take part in the technology that has become such a part of life on the island, and throughout the world. Students from all segments of the community who desire to have careers in information technology and the larger computer industry are provided instruction appropriate to help them meet their goals.

Describe how this program supports the College's Institutional Learning Outcomes below.

ILO 1: Our graduates will be able to communicate effectively in a variety of situations.

Describe how the Program supports ILO1:

Productivity: Work independently and cooperatively to deliver reports, programs, projects, and other deliverables that document a business organization's information technology requirements.

All courses in the IT Program require students to communicate both verbally and in writing, including explaining the reasoning behind programming, using computer software as tools to communicate ideas both in English and computer languages, and communicating with team members in doing group projects.

ILO 2: Our graduates will be able to gather, evaluate and analyze ideas and information to use in overcoming challenges, solving problems and making decisions.

Describe how this Program supports ILO 2:

Information Systems: Plan, develop, and implement the hardware, software, and procedural components of a data processing system in a business environment.

Networking: Plan, develop, and implement the hardware, software, and procedural components of a data communications system in a business environment.

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Programming: Plan, develop, implement, and document computer programs that meet the data processing requirements of a business organization.

Legal/Ethical/Professional: Base decisions and actions on the legal, ethical, and professional guidelines and practices of the information technology field.

Explore: Demonstrate the ability to search, analyze, and synthesize current information and solutions in the rapidly changing information technology profession.

IT graduates have all demonstrated the ability to gather information needed to solve problems faced in the computer industry, and they apply the information to real life concerns. Examples include diagnosing and fixing computer problems faced by clients, evaluating alternate solutions to difficulties and choosing one that is appropriate to the circumstances, and deciding what software to use to meet specific requirements of their clients.

ILO 3: Our graduates will develop the knowledge, skills and values to make contributions to our community in a manner that respects diversity and Hawaiian culture.

Describe how this Program supports ILO 3:

IT graduates have learned skills and knowledge that permit them to contribute to the ability of all members of our community to utilize the ever-changing technology that has become such a major part of modern lives. IT technology has, for instance, been used to promote Hawaiian language education, and making such education widely available. Our graduates all receive instruction in the ethical concerns of our field, including providing clients with high quality work while maintaining their confidentiality and treating them with honesty and fairness.

Annual Report of Program Data (ARPD)

Based on the data from this Program's ARPD, analyze this program's strengths and weaknesses in terms of demand, efficiency, and effectiveness.

Overall Health-- Cautionary

Demand -- Cautionary

Under Demand Indicators, there has been a generally continuous level of available positions for IT personnel in the state, while the number of County positions has declined somewhat. On a national level, analysis by the Bureau of Labor Statistics indicates that IT job outlook is expected to grow at 18% which is 4% above the average for all occupation (www.bls.gov/ooh/computer-and-information-technology). The number of majors has grown steadily, 33 in 2010, 35 in 2011, and 42.5 in 2012. The data do show that SSH in all Program classes has increased markedly, from 564 in 2010-11, 662 in 2011,

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and 679 in 2012. This continues the trend over several years, a very positive sign for the program. With only one faculty, the majors-to-faculty ratio has also steadily increased.

Efficiency -- Cautionary

In the Efficiency Indicators category, there is evidence for a continual increase in average class size, from 10.1, to 11.1, and to 11.4 in the past three years, and an increase in fill rate, from 50% to 55% to 57% in the years 2010-11 through 2012-13. Class size is limited by the number of computers (20) in the classroom used by the IT program.

Cost per SSH and Number of Low-Enrolled (<10) Classes has declined from 2010-11, which shows an improvement in program efficiency.

Effectiveness -- Healthy

The rate for successful completion of courses fluctuated from 72% to 77% and then to 75% in 2012-13. The change in math requirements will be monitored to be sure that students have the necessary background to complete the coursework successfully. The persistence fluctuated from 74% to 64% and back up to 83%. A positive sign is a steady increase in the number of the program's graduates over the past two years from 4 to 7 to 12 in the past three years. Another positive sign is the 4 Certificates Awarded to students who are interested in the specialized certificates embedded in the IT Program but are not able to complete the whole program. Four Certificates of Computer Support were awarded in the past two years from zero in previous years. This shows students are starting to realize the value of the IT certificate. This may lead to their stay on for the higher certificate and ultimately the IT AS degree. There is clear evidence for a steady increase in SSH, increases in class size, and a steady increase in the number of majors and degrees/certificates awarded in the three year period. The program still can handle a modest increase in student numbers, and would be helped by better retention.

Distance Education: Completely On-Line Classes

If applicable, based on the data on Distance Education (DE) from this Program's ARPD, analyze this program's strengths and weaknesses in terms of its DE offerings. Include future plans (i.e. will increase/decrease offerings; CARP 100 was not effective online, will try CARP 101 instead; increase professional development for faculty).

N/A

Perkins IV Core Indicators

If applicable, provide an analysis for any Perkin's Core Indicator for which this program did not meet the goal.

The IT Program met three of the four areas of the Perkins IV Core Indicators for 2011-12. The area that was not met was, 2P1 Credential Completion. The program's goal for the 1P1 area was 90.00, and

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attainment was 100.00. This is a major achievement for the IT Program since the general rigor of the field has presented challenges for some of our students to maintain adequate GPAs, particularly when some of the students must work while attempting to complete their studies.

For the 2P1 Completion area, the Program fell just short of its goal of 50.0, with 28.57 percent stopping due to completion of the certificate or degree. The goal of communicating to students the opportunity to complete the new certificate program is likely to lead to higher attainment on this indicator in the future.

For the 3P1 Student Retention or Transfer, the Program significantly surpassed its goal of 74.25 with an actual score of 80.95.

For the 4P1 Student placement, the program attained its goal of 60.0 with a score of 77.78. The placement number should be even better once the country's economy is back on track.

Overall, the HawCC IT Program has considerably improved its score on the Perkins IV Core indicators in the past year.

Performance Funding

Briefly describe initiatives/strategies that this program has or will implement to increase any or all of the Performance Funding outcomes.

The IT Program is a high quality program, with great success rates for its graduates in obtaining high level positions in the workforce. Students learn numerous technical skills and also learn how to perform professionally in a business environment, how to work successfully in teams, and how to learn on their own to update their skills in the rapidly advancing field of IT. Our graduates have had great success in finding good jobs after completing their degrees, and the number of new positions projected within the county suggests strong demand in the field. The Program's weaknesses have been a difficulty in recruiting large numbers of students who are prepared for the intensive nature of the program, and a difficulty in graduating majors within a 2-3 year period, particularly given the need for many students to work while doing their studies. The past few years have shown healthy growth in the program, reflecting improved recruitment. Many of the students receive employment in the IT field while working their way through school, and thus provide for themselves while gaining valuable experience. Also, the program's requirement for an internship class further provides experience for the students, and often provides connections for full time employment upon graduation.

A concern raised in the previous reviews was a need to increase our number of majors. As a result, the mathematics prerequisite of our introduction course (ICS101) was changed, from Math 25 or Math 26 or placement in Math 100 to completion of Math 24, or placement in Math 26 effective beginning in Fall 2011. There has been a steady increase in the number of majors over the past several years, with a 28.8% increase in the past two years; some of the increase may be due to the changed math

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requirement. Thus, a strong trend of growth in majors has occurred. In order to service more students in HawCC, the mathematics prerequisite of ICS100 was changed, from Math 50 or Math 24 or placement in Math 26 to “C” or better in Math 1ABCD or placement in Math 50 or Math 22 beginning in Fall 2011. Also, beginning in Fall 2007 ICS 100 became an elective for fulfilling the Social Science General Education requirement for the AS and AAS degree; this has helped to increase the number of students served by the IT program, with a significant trend of increase in total SSH provided by the program. This increase in student numbers has led to steady increases in average class size, fill rate, and number of majors per faculty, while cost per SSH is lower than it was two years ago. It is projected that once ICS 101 is GE designated in fall 2014, IT program's SSHs will further increase.

Previous Program Actions

From the Academic Master Plan (AMP), list the Program Actions for this program. Give a progress report for each Program Action, describe the degree of achievement. Indicate “Delete” if this Program Action will no longer be a priority Program Action

Program Actions	Progress Evaluation
20.1 Create stackable certificates culminating with the existing (or modified) AS degree.	At present, the Certificate of Completion in Computer Support is beginning to be noticed by non-IT majors. The intention of the creation of this certificate is to recruit students who would like to use this certificate to supplement their majors. It is hard to tell from the data provided since it lumped the numbers of certificates and degrees awarded into one. More time is needed in order to make sense out of the data. Referring back to the previous graduation data, 9 degrees and certificates is not an adequate number to start with.
20.2 Develop and implement strategies to increase course completion, improving retention and graduation rates.	Telephoned and followed up on students who dropped out of the program. Of the six students called, two returned to the IT program in Fall 2012; continued to monitor the results of the modified prerequisites for the IT-CC so that students can possibly obtain their CC in one year (fall-spring, spring-fall). It looks like this strategy is beginning to work out as there is an increase in enrollment. Students are beginning to show interest in pursuing the CC. We will have to monitor this trend for a few years to be able to tell for sure.
20.3 Develop a stackable certificate in Health IT.	Delete. The Health IT Program is reserved for Kapiolani Community College at present.
20.4 Pursue Perkins funding to hire an APT to gather data and track students, providing information that can be used to strengthen the program, recruit and retain students, and improve completion rates	Will request assistance from the administration and the VCAA.

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20.5 Collaborate with UH Hilo to determine the feasibility of using the IT Certificate of Achievement as a stackable certificate within the UH Hilo IT baccalaureate degree.	Have initiated discussions with faculty in the UH Hilo Computer Science department on acceptance of HawCC IT credits in their program. Several of the IT graduates have continued into the UH Hilo Computer Science major.

Significant Program Actions for 2012-2013. (include curriculum changes, new certificates, stopout, gain/loss of positions)

1. Increased outreach to high schools in order to enhance student recruitment. This has led to increased number of majors in IT.
2. Continued to actively participate in the Astronomy Workforce Task Force to prepare our IT students for future job openings in the astronomy field.
3. Continued to solicit community support in donating their obsolete equipment to the IT program for hands-on lab. Received major computer equipment such as: file servers, LCD monitors, desktops and laptops from Gemini Observatory, the Imlilo Astronomy Center and small businesses in Hilo.

Analysis of Strengths and Weaknesses

Briefly describe this program's top 3 strengths and 3 weaknesses. Provide an explanation and supporting evidence for each strength and weakness (e.g. assessment results, data elements from ARPD, surveys, etc.)

Strengths	Using supporting evidence, describe why this is a strength
S1. High success rate of graduates in workforce.	Our graduates continue to thrive in their IT positions and provide invaluable services to their employers. Most of them are staying with their company as reported in last year's report. These include the IT Manager of Cellana, LLC of Kona, Hawaii. Specialist in charge of the network and computer systems for the County of Hawaii, and IT employee at the Imlilo Observatory, Hospice of Hilo, Hawaii Electric Light Company, KTA Superstores, and Development Director of Aha Punana Leo to name a few. These graduates are involved in government, private industry, and in community groups including those dedicated to education of Native Hawaiians. The four students in the past two years who have gone on to four year programs, are continuing their pursuit of the Computer Science degree. One graduate is enrolled in the Engineering School in UH-Manoa. The former graduate who is a senior in Hawaii Pacific University majoring in Computer Information Systems has returned to Hilo being offered an IT Specialist

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	position in a credit union. He is continuing to pursue his degree. The student who enrolled in Oregon Community College majoring in Network Security while obtaining certificates in Networking and Unix Systems completed his second AS degree and certificate. He is now working as a Network Specialist in the US Bank while continuing his pursuit of his CS degree in Data Forensics.
S2. Great satisfaction with student interns by local businesses.	Feedback from supervisors of students in ITS 293 who serve as interns in local businesses has been very laudatory. Also, several of the students have received full time job offers from their internship positions. On July 13, 2013 received email from Jack Little of Keonepoko High with email titled "looking for another graduate of your program". He was looking for another IT graduate to replace the IT graduate that was working for him. *Attached are the supervisors' reviews of the IT interns from the IT program capstone course (ITS 293) in spring 2013 showing their satisfaction with their job performance.
S3. Provides critical computer skills classes for HawCC and the community. The IT Program offers a broad array of classes in computer software usage, programming, computer maintenance, web page design. Immediate plan is to submit ICS 101 to be GE designated in Technology Competency in F2014.	The program provides a rounded curriculum for our majors. *Refer to attached IT Advisory Meeting Report April 2013.

Weaknesses	Using supporting evidence, describe why this is a Weakness
W1. Low, but rising, graduation numbers. As noted above, there has been a steady increase in the number of majors in the IT Program over the past several years.	Incoming students are not prepared for the intensive nature of the program, thus the difficulty in graduating majors within a 2-3 year period, particularly given the need for many students to work while doing their duties.
W2. Relatively small class sizes for some courses.	There are still some classes with somewhat low enrollment, although the increased number of majors and general trend for increased enrollment in IT courses from non-majors has reduced the number of these low enrolled classes. There is some limitation based on the number of computers available for student use in the classrooms used by the IT Program.
W3. Lack of sufficient number of faculty to appropriately cover all of the program's courses, and also recruit new	The Program has continued to request replacement of the position lost when a faculty member (Kent Killem) retired in Fall 2009. Our IT program consists of 12 ICS/ITS courses with a total of 42 credits. At present, the maximum load for

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<p>students and develop new initiatives, such as 2 + 2 programs.</p>	<p>a full time faculty is 27 credits for a school year. That leaves 15 credits unaccounted for. With a minimum of 42.5 majors, and the addition of a Computer Support Certificate of Completion, we are not able to sustain the program with only one full time faculty. Also, the steadily increasing SSHs provided by the IT Program have led to an increasing difficulty in staffing needed courses. It is projected that once ICS 101 is GE designated in Fall 2014, it will add extra pressure to the program to support the increase in SSHs. This is and will continue to be a challenge for the program.</p>
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Trends and Other Factors

Describe trends including comparisons to any applicable standards, such as college, program, or national standards from accrediting associations, etc. Include, if relevant, a summary of Satisfaction Survey Results, special studies and/or instruments used, e.g., CCSSE, etc. Describe any external factors affecting this program or additional program changes not included elsewhere.

<p>The planned Thirty Meter Telescope to be built on Mauna Kea is likely to have positions for several graduates in the IT Program. The continued improvement in the economy is also likely to lead to more job opportunities for IT graduates.</p>

Part III: Action Plan

Goals and Planning

List additional Program Action(s), not included in the AMP to be implemented for program success. Identify the AMP Priorities, College's ILOs, Strategic Plan Action Strategies, and UH System collaboration (if applicable) to which these Program Action(s) align.

Program Action 1		ILO Alignment (select up to 3)	Strategic Plan Alignment (select best alignment; max 3)		UH System Collaboration
			Performance Measure	Action Strategy	
Increase scholarships and other special opportunities for students (e.g., Akamai)	Graduation	ILO 2	None	New Strategy	Akamai and other scholarships that are available to
	Graduation	ILO 3	None	New Strategy	
	Graduation	None	None	None	

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					students in other colleges
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[Link to Hawaii Community College Institutional Learning Outcomes](#)

[Link to Hawai'i Community College Strategic Plan](#)

[Link to Hawaii Community College Academic Master Plan](#)

Narrative of New Strategy for Strategic Plan:

1. The Program Coordinator has begun to meet regularly with students to alert them to scholarship or other special opportunities, and to encourage them to apply.
2. The Program Coordinator works with some of the students on preparing their applications and writes recommendation letters for the students.
3. The Program Coordinator works with the lecturers to alert students to scholarship or other special opportunities, and to encourage them to apply.

Briefly explain how **Program Action 1** aligns to the College's AMP Priorities, ILOs, Strategic Plan, and UH System collaboration (if applicable):

The activity takes place throughout the academic year as opportunities are identified. While helping students obtain financial aid to enhance retention, it also serves as a means to improve communication skills.

Calendar of planned activities for **Program Action 1** – In chronological order, briefly describe the procedures/activities planned to achieve **Program Action 1**

Activity(ies)	When will the activity take place
Example: Nursery design development Shade replacement Irrigation design and installation	September 2014 Fall 2014 Spring 2015
Invite the Akamai Coordinator to talk to the students	Spring 2014

Program Action 2		ILO Alignment (select up to 3)	Strategic Plan Alignment (select best alignment; max 3)		UH System Collaboration
			Performance Measure	Action Strategy	
Assist students with preparation of resumes and job applications	Graduation	ILO 1	None	New Strategy	N/A
	Graduation	ILO 3	None	New Strategy	
	Graduation	None	None	New Strategy	

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Narrative of New Action Strategy for Strategic Plan:

1. This activity takes place in the students' final semester as part of the requirements for the course ITS 293.
2.
3.

Briefly explain how **Program Action 2** aligns to the College's AMP Priorities, ILOs, Strategic Plan, and UH System collaboration (if applicable):

The activities help the students get jobs, but also serve as a means to improve the communication skills of the students.

Calendar of planned activities for **Program Action 2** – In chronological order, briefly describe the procedures/activities planned to achieve **Program Action 2**

Activity	When will the activity take place
Preparation of resumes and job applications	continuous throughout the semester

Program Action 3		ILO Alignment (select up to 3)	Strategic Plan Alignment (select best alignment; max 3)		UH System Collaboration
			Performance Measure	Action Strategy	
	Graduation	ILO 1	A1.1	New Strategy	
	Graduation	ILO 1	A1.1	New Strategy	
	Graduation	ILO 1	A1.1	New Strategy	

Narrative of New Strategy for Strategic Plan:

1.
2.
3.

Briefly explain how **Program Action 3** aligns to the College's AMP Priorities, ILOs, Strategic Plan, and UH System collaboration (if applicable):

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Calendar of planned activities for **Program Action 3** – In chronological order, briefly describe the procedures/activities planned to achieve **Program Action 3**

Activity	When will the activity take place

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List specific action plans for any Perkin's Core Indicator for which this program did not meet the goal.

Perkin's Indicator	Action Plans	When will the activity take place
2P1	Improve communication with current and future students on the certificate programs, and how they are stackable with the AS degree.	Discussions with current students primarily starting in the introductory classes and continues throughout the different semesters; discussions with future students occur primarily during visits to local high schools.
None		

Part IV: Resource Implications

List Top 3 Cost Items needed for program success. Identify alignment to the AMP Program Actions, Strategic Plan Action Strategies and/or Strengths and/or Weaknesses to address.

Cost Item 1	Type	Cost	Strategic Plan Alignment (select best alignment; max 3)		Academic Master Plan Alignment (select best alignment; max 3)	Strength	Weakness
				Action Strategy	Program Action from AMP (ie 4.3) or write "New Strategy"	From Part II above	From Part II above
Hire 1 FTE faculty	Personnel	60K	D.1	New Strategy		S1	W3
			None	New Strategy		S2	W2
			None	New Strategy		S3	W1

[Link to Hawaii Community College Institutional Learning Outcomes](#)
[Link to Hawai'i Community College Strategic Plan](#)
[Link to Hawaii Community College Academic Master Plan](#)

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Briefly explain why **Cost Item 1** is necessary to meet priorities of program and/or to address strengths and/or weaknesses.

1. To fill the IT faculty position left vacant by the retirement of an IT faculty. Our IT program consists of 12 ICS/ITS courses with a total of 42 credits. At present, the maximum load for a full time faculty is 27 credits per school year. That leaves 15 credits unaccounted for. At present, with a minimum of 35 IT majors, and the addition of a Computer Support Certificate of Completion, we are not able to sustain the program with only one full time faculty. Also, the steadily increasing SSHs provided by the IT Program have led to an increasing difficulty in staffing needed courses. This is a continuing challenge for the program.
2. To increase the number of majors by recruitment both from high schools and from the increased numbers of non-majors in introductory level IT courses.
3. To meet the needs of the college for a Technology Competency course for all HawCC students.

Cost Item 2	Type	Cost	Strategic Plan Alignment (select best alignment; max 3)		Academic Master Plan Alignment (select best alignment; max 3)	Strength	Weakness
				Action Strategy			
Establish an IT lab	Facility	5k	E.1	New Strategy	Program Action from AMP (ie 4.3) or write "New Strategy"	S1	W2
			A1.1	New Strategy		S2	W3
			A1.1	New Strategy		S3	None

Briefly explain why **Cost Item 2** is necessary to meet priorities of program and/or to address strengths and/or weaknesses.

Most of the IT courses are hands-on oriented. Students are required to do a large amount of hands-on work using the hardware and software provided to them in the classroom. However, at present, we do not have a lab for the students to work on the assignments that must be completed in class. We are utilizing one classroom to fulfill the lecturing, hands-on activities and for students to complete their assignments outside of class. At times, there were three different groups of students from three different courses using the same classroom. While students are courteous and mindful of each other, there are times when they create distractions to others. Having an IT computer lab will solve this problem. It will also provide a safe work place for IT students to hang out and learn from each other.

Cost Item 3	Type	Cost	Strategic Plan Alignment (select best alignment; max 3)		Academic Master Plan Alignment (select best alignment; max 3)	Strength	Weakness
				Action Strategy			
					Program Action from AMP (ie 4.3) or write "New Strategy"	From Part II above	From Part II above

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Additional computers for hands-on class and continue subscription to MSDN Academic Alliance Program for classroom software	Equipment	5k	D.3	New Strategy		S1	W3
			A1.1	New Strategy		S2	W2
			A1.1	New Strategy		S3	None

Briefly explain why **Cost Item 3** is necessary to meet priorities of program and/or to address strengths and/or weaknesses.

New equipment and software is a must in order to keep the program up-to-date.

Part V: Program Student Learning Outcomes

List the Program Learning Outcomes and check mark those assessed for the 2012-2013 program year.

	Check mark if Assessed this year	Program Student Learning Outcomes
1	<input type="checkbox"/>	Information Systems: Plan, develop, and implement the hardware, software, and procedural components of a data processing system in a business environment.
2	<input type="checkbox"/>	Networking: Plan, develop, and implement the hardware, software, and procedural components of a data communications system in a business environment.
3	<input checked="" type="checkbox"/>	Programming: Plan, develop, implement, and document computer programs that meet the data processing requirements of a business organization.
4	<input type="checkbox"/>	Productivity: Work independently and cooperatively to deliver reports, programs, projects, and other deliverables that document a business organization's information technology requirements.
5	<input type="checkbox"/>	Legal/Ethical/Professional: Base decisions and actions on the legal, ethical, and professional guidelines and practices of the information technology field.
6	<input type="checkbox"/>	Explore: Demonstrate the ability to search, analyze, and synthesize current information and solutions in the rapidly changing information technology profession.
7	<input type="checkbox"/>	
8	<input type="checkbox"/>	
9	<input type="checkbox"/>	
10	<input type="checkbox"/>	

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A) Evidence of Industry Validation for CTE Programs – Provide documentation that the program has submitted evidence and achieved certification or accreditation from an organization granting certification in an industry or profession. If the program/degree/certificate does not have a certifying body, the recommendations for, approval of, and/or participation in, assessment by the program's advisory council can be submitted. – Describe the documentation; i.e. 9/27/2013 Minutes of ACC Advisory Council; Completed Rubrics by Advisory Council Members.

Please refer to the attached IT Advisory Meeting Report April 2013 from Analysis of Strengths and Weaknesses S3.

B) Expected Level of Achievement – Describe the different levels of achievement for each characteristic of the learning outcome(s) that were assessed. What represented “excellent,” “good,” “fair,” or “poor” performance using a defined rubric and what percentages were set as goals for student success; i.e. 85% of students will achieve good or excellent in the assessed activity.”

85% of students will meet or exceed expectations.

C) List Course(s) Assessed – List the courses assessed during the reporting period.

ITS 103 "Introduction to the Programming Process" and ITS 118 "Visual Basic Programming for Business Applications"

D) Assessment Strategy/Instrument – Describe what, why, where, when, and from whom assessment artifacts were collected.

Selected assignments – one from each 1/ 2 of the semester were collected from the students enrolled in ITS 103 “Introduction to the Programming Process” and ITS 118 “Visual Basic Programming for Business Application”.

Evaluators were given three assignments randomly selected from each course for evaluation.

Please refer to attached assessment reports for ITS 103 and ITS 118.

E) Results of Program Assessment – The % of students who met the outcome(s) and at what level they met the outcome(s).

87.6% of students met or exceeded expectations.

Please see G below and refer to attached assessment reports for ITS 103 and ITS 118.

F) Other Comments – Include any information that will clarify the assessment process report.

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All of the seven evaluators are from the IT Advisory Council which is comprised of IT professionals in the community.

Please refer to attached assessment reports for ITS 103 and ITS 118.

G) Next Steps – Describe what the program will do to improve the results. “Next Steps” can include revision to syllabi, curriculum, teaching methods, student support, and other options.

The data presented in the report cover both first and second semester students from two different courses in the programming sequence, and thus are an adequate sampling of the program’s student body. We had raised our goal for having met or exceeded expectations on evaluations from 80% to 85% in the current year; in fact, we surpassed our goal with 87.6% of evaluations having met or exceeded expectations. The data suggest that the program is meeting its goals of learning outcomes. However, continued improvement is desired. The program will attempt to get more information from any future evaluations that fall below level 2 (meeting expectations) to discover precisely what concerns the evaluator has, and what course changes may help meet these concerns. We will analysis the comments from the evaluators and improve the courses. Evaluation and monitoring will be continued to insure that goals continue to be met.