

Program Review

Carteret Community College

Computer Information
Technologies

2009/2010

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Executive Summary

Section One: Program Profile

The Computer Information Technology program is a two-year A.A.S. program, and a year-and-a-half diploma program, both with open enrollment. Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

The student population is diverse in age and culture with an approximate 60:40 ratio of male to female students – although prior to 2004, that ratio was reversed.

With a good mix of full time instructors to provide stability, and part time adjunct instructors to add real world experience, the level of instruction is fairly high.

Resources such as library materials, classroom and lab facilities are adequate.

The Advisory Board consists of former and current students, as well as employers and employees from several area businesses and government agencies.

Section Two: The Program

Course work in this 74 hour A.A.S. program develops a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, programming, emerging technologies, web fundamentals, PC Repair, databases, networking, security, and technical support.

A variety of course delivery methods are available to fulfill our students' needs. Traditional seated classes are most often used due to the hands-on nature of the subject matter, but hybrid and online classes are also offered when it makes sense to do so.

Course prerequisites and sequencing have been evaluated and changed to aid in student success and course completion. Prior to spring 2006, the program was called "Information Systems Technology".

This is a technology based program which needs updated equipment and software to adequately prepare the students to work in a constantly changing and diverse field. The funding to include cutting edge technological advances is a concern, and needs to be constantly addressed.

Section Three: Outcomes

The CIT program is dedicated to using AOs, POs, PLLOs and CLLOs in an attempt to capture meaningful data with which to make intelligent decisions about course and program content.

It is obvious that our average CIT student takes too many semesters to graduate; the technology they learned early on may well be on its way to obsolescence. Additionally, we have to develop more employment opportunities locally, so our graduates can earn a working wage upon graduation.

Our Advisory Board has been static for quite some time. We need some fresh perspective from a new crop of local business leaders and owners.

With the current economic downturn nationwide, industry certification becomes even more important, both for students and instructors.

Section Four: Need for Change

Analysis of Outcomes and SWOT information determined a need for change in some areas:

- Pursue more Dual Enrollment courses to entice local high school students. Possible courses include Visual Basic programming and hardware repair
- Verify that students coded to this major are in fact valid, degree-seeking students. Monitor their progress closely, and ensure they are on track to graduate on time according to their desires. Strengthen our entire academic advising process.
- Seek out funding for replacement parts for the hardware lab.
- Upgrade software to include Office 2010 and Adobe Creative Suite 5.
- Given that we are about to lose a full-time instructor (Glenda Chagaris) to retirement, and another instructor (Donna Jones) will be coming back to campus from Cape Lookout HS, take a fresh look at which instructors teach which subjects. Encourage cross-training and industry certification of instructors.

Section Five: Future Issues

The Computer Information Technology program stays up-to-date with current market trends by enhancing course topics already presented.

It is determined that Faculty training is a significant need. Due to the diverse set of skills needed to keep up with the trends and technology continuous training is needed. The Computer Information Technology program intends to stay atop of current technology trends and upgrade faculty skill sets to match these trends.

There are no specific future equipment needs (except for the program's constant need to update computer systems to keep up with software minimum requirements). The facilities and space are adequate for our course needs. New versions of application software (Office 2010 and CS5) need to be purchased, so we may continue to teach the latest and greatest software in all our classes.

Section One: Program Profile

A. Mission/Purpose

The Computer Information Technology program is a two-year A.A.S. program which seeks to educate and train our students using the latest methods, software, hardware and networking equipment, thus helping them improve their lives and to become leaders in Carteret County.

Program Goals:

- The program will stay current with industry standards.
- Enhance and provide quality distance learning opportunities
- Provide opportunities for faculty to stay current in their fields and in teaching methods
- Strengthen partnerships with Carteret County's public and private K-12 schools and universities to enhance education and services for students throughout the educational continuum
- Promote community partnerships to leverage resources

These program goals are fully in support of the Carteret Community College Mission to "be a leader in improving the quality of life for all citizens of Carteret County and Eastern North Carolina by offering opportunities for lifelong learning through high quality teaching, training, support, and enrichment".

B. The Faculty

Currently there are three full-time CIT instructors (one of whom is the program coordinator), one full-time WEB instructor who also teaches some networking courses for CIT, and several high-quality adjunct instructors.

Mary Walton is the Business Technologies Division Director. A 1997 graduate of East Carolina University with a Masters Degree in Education, specializing in Instructional Technology, Ms Walton holds Microsoft Office certifications in Word, Excel, Power Point and Access. She specializes in databases and Office applications.

The CAC, Tom Edwards, is a 1986 graduate of the Naval Postgraduate School where he earned his Master's Degree in Electrical Engineering. He has taught for CCC since 1997 when he retired

from the US Marine Corps. A+, Network+, and several Microsoft Certifications round out his credentials. He specializes in programming, operating systems, and computer networking.

Brad Nicolajsen teaches networking and web classes along with Office applications. A 2002 graduate of East Carolina University with a Masters in Instructional Technology, his industry certifications include Cisco, Net+, iNet+, and Sec+.

Donna Dunnehoo-Jones specializes in web classes, along with Office applications. She graduated from East Carolina University in 1991 with a Masters in Education.

Graduating from East Carolina University in 1989 with a Masters in Business Education, Glenda Chagaris mainly teaches Excel spreadsheet classes.

Rebecca Stimpson holds a BS in Business Education from East Carolina University which she earned in 2001. Shortly she will have a Master's degree under her belt, but until then she teaches only Computer Fundamentals for us.

Julia Hamilton earned her Masters in Arts with a specialization in Education from East Carolina University. She covers Office applications, emerging technologies and databases for us. At one time she was a full time instructor here, and started the Internet Technologies curriculum which later evolved into Web Technologies. She has been employed until recently as a public high school teacher.

Terence Smith earned his MBA in Computer Information Systems from Campbell University in 1998. As an adjunct instructor he teaches PHP programming, but his full time job is as the CCC Chief Information Officer. As such he is also the college webmaster.

Alecia "LaGrande" Moore is also an adjunct, teaching Office applications at night and online. A full time employee at the Fleet Readiness Center at Cherry Point, LaGrande earned her MS degree in Business Administration & Management from Boston University in 1994.

Ken Martin is the Director of Networking Technology here at CCC. He teaches at night and online in the areas of PC repair, server administration and Office applications. With a Masters in Technology Systems from ECU in 2004, and daily practical experience in the networking arena, he is well versed to do so.

Last, but not least, we have another adjunct instructor in Janet Spriggs, who holds the title during the day of Vice President for Educational Support Services here at CCC. Her life experiences stand her in good stead while teaching Systems Analysis and Design. She earned her Masters in Science degree in Computer Technology Education in 1999 from Nova Southeastern University.

C. The Students

The student population is predominantly Caucasian with a slight majority of male versus female students. As indicated by the curriculum area coordinator, many full-time students are traditional students (18-24 year olds) whereas many part-time students are non-traditional in nature (25 years of age or older) and are employed full-time during the day.

Gender, race, day versus evening, full-time versus part-time student information is as follows:

a. Demographic *(Source: IE Office/Data Warehouse)*

Classification	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Male	41.5%	49.3%	52.6%	71.2%	70.8%	62.3%
Female	58.5%	50.7%	47.4%	28.8%	29.2%	37.3%
Full Time	29.9%	32.1%	30.2%	37.5%	43.9%	50.0%
Part Time	70.1%	67.9%	69.8%	62.5%	56.1%	50.0%
Day	61.7%	77.6%	58.1%	22.8%	45.5%	52.2%
Evening	38.3%	22.4%	41.9%	77.2%	54.5%	47.8%
White	84.9%	88.0%	82.5%	75.0%	83.3%	83.6%
Minority	15.1%	12.0%	17.5%	25.0%	16.7%	16.4%

Students enrolled in the computer information systems curriculums are required to complete general admission requirements, i.e. application for college admission, placement testing, and official transcripts from all colleges and high schools attended. General education courses are available during the day, evening, and online while most core courses are offered both during the day and evening.

b. Number of Graduates (Source: IE Office/Data Warehouse)

Year	Degree	Diploma	Certificate	Total
2000-01	10	2	n/a	12
2001-02	9	0	4	13
2002-03	9	0	2	11
2003-04	14	2	1	17
2004-05	11	0	0	11
2005-06	9	0	0	9
2006-07	2	1	0	3
2007-08	0	0	0	0
2008-09	4	1	0	5

Many students who receive college surveys via the US Postal system do not complete and return them.

c. Employment Demand of Graduates of the Program (*Source: Department/Graduate Surveys*)

Year	Graduates	# Employed	% Employed	Unknown
1999-00	9	5	100%	4
2000-01	10	4	80%	5
2001-02	13	3	75%	9
2002-03	11	5	71%	4
2003-04	17	4	24%	13
2004-05	11	1	33%	8
2005-06	9	6	86%	2
2006-07	3	1	50%	1
2007-08	0	n/a	n/a	n/a

The Computer Information Technology curriculum follows United States industry trends. During the early 2000s, the computer industry began a downward spiral which is indicative of the roster coaster numbers as indicated above.

1. Employment Demand of Graduates of the Program (*Source: Department/Graduate Surveys*)

Year	Graduates	# Employed	% Employed	Unknown
1999-00	9	5	100%	4
2000-01	10	4	80%	5
2001-02	13	3	75%	9
2002-03	11	5	71%	4
2003-04	17	4	24%	13
2004-05	11	1	33%	8
2005-06	9	6	86%	2
2006-07	3	1	50%	1
2007-08	0	n/a	n/a	n/a

Employment and demand of graduates follows the same logic as listed in #1 Number of Completions.

2. Program Enrollment – annual unduplicated headcount with three-year average.

Standard: three-year average greater than or equal to 10. (Source: IE Office/Data Warehouse)

Year	enrollment	3-year average
1999-00	139	143.3
2000-01	137	140.7
2001-02	113	129.7
2002-03	124	124.7
2003-04	106	114.3
2004-05	75	101.7
2005-06	57	079.3
2006-07	52	061.3
2007-08	48	052.3
2008-09	61	053.6

Although during the early 2000s enrollment numbers decreased, this again follows industry trends and economic downfall. However, the curriculum has shown a recent increase in enrollment beginning in 2008.

The CAC continues to work closely with the CIT advisory board, which consists of current and former students, employers and employees of local business, to ensure that community needs are met.

Faculty members aggressively pursue professional development opportunities as funding allows as well as self-study via professional journals, magazines articles, webinars, and on-line content.

3. Curriculum Student Retention and Graduation. *Standard: 60% (Source: IE Office/System Records)*

Year	Enrollment	grads	return	non-completers	retention rate	new program
1999-00	87	8	35	44	49.4%	7
2000-01	98	10	43	45	54.1%	3
2001-02	89	13	32	44	50.6%	12
2002-03	84	8	40	36	57.1%	0
2003-04	84	18	32	34	59.5%	7
2004-05	59	12	25	20	62.7%	2
2005-06	44	9	14	16	52.3%	5
2006-07	36	3	12	21	41.7%	0
2007-08	34	1	15	18	47.1%	6

The Computer Information Technology program offers both associates and diploma degrees at CCC. This curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible curriculum that can be customized to meet community information systems needs. During the 2006-2007

academic years, the North Carolina Community College System formerly renamed this curriculum from Information Systems Technology to Computer Information Technology.

Course work will develop a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, programming, emerging technologies, web fundamentals, PC Repair, databases, networking, security, and technical support.

Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

1. Program FTE (Source: IE Office/Data Warehouse)

The computer industry as a whole was in steady decline for a period of years beginning with the so-called 'dot-com' bust. The enrollment and FTE of the CIT program reflects this industry trend. Recent data suggests that the worst is over, and that our FTE should begin to rise.

A25260

	Fall	Spring	Summer	Total
1997-98	33.49	33.14	12.62	66.63
1998-99	34.91	35.48	14.06	70.39
1999-00	32.41	28.35	09.08	60.76
2000-01	37.64	35.50	14.82	73.14
2001-02	34.63	30.25	14.12	64.88
2002-03	28.17	29.48	11.05	57.65
2003-04	25.96	21.34	06.35	47.30
2004-05	20.53	17.75	03.75	38.28
2005-06	14.35	13.84	01.85	28.19
2006-07	11.14	10.14	02.13	21.28
2007-08	11.05	10.55	02.41	21.60
2008-09	12.23	11.57	02.63	23.80

A2526D

	Fall	Spring	Summer	Total
2002-03	0.00	0.00	0.09	0.00
2003-04	0.48	0.34	0.00	0.82
2004-05	0.00	0.01	0.00	0.01
2005-06	1.41	0.68	0.01	2.09
2006-07	1.16	1.58	0.00	2.74
2007-08	0.02	0.00	0.00	0.02
2008-09	0.00	0.00	0.00	0.00

C25260

	Fall	Spring	Summer	Total
2001-02	0.00	0.00	0.22	0.00
2002-03	1.04	0.69	0.00	1.72
2003-04	0.56	0.31	0.00	0.88

D25260

	Fall	Spring	Summer	Total
1997-98	2.73	2.35	3.10	05.08
1998-99	7.13	5.62	4.81	12.75
1999-00	5.00	5.15	1.00	10.15
2000-01	3.59	4.06	1.16	07.65
2001-02	1.85	2.11	1.24	03.96
2002-03	2.77	3.25	0.73	06.02
2003-04	1.34	0.62	0.10	01.96
2004-05	0.19	1.06	0.00	01.25
2005-06	0.01	0.97	0.14	00.98
2006-07	0.53	0.41	0.00	00.94
2007-08	1.44	1.41	0.59	02.85
2008-09	2.69	2.38	0.56	05.07

D2526D

	Fall	Spring	Summer	Total
2002-03	0.00	0.44	0.00	0.44
2003-04	1.94	0.91	0.13	2.84
2004-05	0.81	1.00	0.00	1.81
2005-06	0.94	1.01	0.03	1.95
2006-07	0.80	0.00	0.00	0.80
2007-08	0.09	0.03	0.00	0.12

Goal Completion of Completers – number of respondents and percentage who reported complete or partial accomplishment of goals. *Standard: 95% (Source: IE Office/Graduate and Non-Completer Surveys)*

Year	completers		non-completers	
	count	percentage	count	Percentage
1999-00	5	100.0%	11	45.5%
2000-01	5	100.0%	11	45.5%
2001-02	4	100.0%	3	33.3%
2002-03	7	100.0%	3	33.3%
2003-04	3	100.0%	5	60.0%
2004-05	3	100.0%	2	100.0%
2005-06	7	100.0%	3	66.7%
2006-07	2	100.0%	1	100.0%
2007-08	0	n/a	0	n/a

Student Satisfaction of Completers and Non-Completers – number of respondents and percentage who reported satisfaction with overall quality of academic program. *Standard: 90%* (Source: IE Office/Graduate, Non-completer, and Current Student Surveys)

Year	completers		non-completers		current students	
	count	percentage	count	percentage	count	percentage
1999-00	5	80.0%	13	92.3%		
2000-01	5	100.0%	10	90.0%		
2001-02	4	100.0%	2	100.0%	37	91.9%
2002-03	6	100.0%	3	100.0%	27	100.0%
2003-04	4	100.0%	4	100.0%	11	90.9%
2004-05	3	100.0%	2	100.0%	11	100.0%
2005-06	7	85.7%	3	100.0%	n/a	n/a
2006-07	2	100.0%	1	100.0%	n/a	n/a
2007-08	0	n/a	0	n/a		

Financial Aid Recipients (Source: Financial Aid Office)

Financial aid in the form of grants, loans, and scholarships is available to students enrolled at Carteret Community College. Information on the financial aid application process and programs can be found on the Carteret Community College website, www.carteret.edu. The Computer Information Systems diploma curriculum was approved by the Department of Education as an eligible program in 2005. Information Systems Technology was originally approved in 1999 but was discontinued in 2005 due to the name change. The Department of Education requires prior approval for diploma and certificate level programs but automatically approves all associate degree programs.

D. Resources

1. Support Personnel

Division Secretary

The division secretary's responsibilities include distributing incoming mail, working with outgoing mail, organizing and distributing mass mailings, working with students in the coop

program located at Cherry Point, North Carolina, maintaining and uploading to the college network the course syllabi for all the courses taught in the CIT curriculum, creating and mailing information to the CIT advisory Committee, greeting students, directing students to correct locations such as the computer lab or instructors' offices, helping with duplication and assembling of various printouts, and working closely with instructors to aid them in whatever is necessary to support the program.

Student Enrollment Resources (SER)

The SER services to students and college departments include admissions, counseling, and registration. The College counseling staff is experienced in assisting students in the development of skills and attitudes needed to succeed at the post-secondary level. Students who are uncertain of career goals, or who are experiencing academic difficulties, are encouraged to speak with a counselor. Students with personal concerns that may interfere with academic success are also encouraged to seek guidance from the counseling staff.

Financial Aid Officer

Financial assistance is available on the basis of need and academic progress. There is, in most cases, financial aid available if the eligible student applies in time and completes all of the required forms properly. Financial aid is considered to be the umbrella that all of the different financial aid programs fall under. Grants, loans, work-study jobs, child care assistance and scholarships are all classified as financial aid. Therefore, all first-time, returning, and transfer students are encouraged to apply.

Office of the Registrar

The Office of the Registrar of Carteret Community College is responsible for the integrity of student records for the university, the planning and execution of registration of students each semester and summer session, assignment of classroom space for classes and meetings, issuing grades, issuing transcripts, certification of degree requirements for students, mailing diplomas to graduates, and maintenance of a computerized student database.

Academic Support Services

The Academic Support Center provides support to prospective students and to curriculum students enrolled in courses at all levels. Tutors are available to work with students on campus and on-line in various subjects, including math, reading, English, Spanish, chemistry, biology, and anatomy & physiology. Online tutoring is available through Blackboard and is open to all students. In addition, the ASC provides peer tutoring, online tutoring and a variety of workshops.

In the testing center, various tests are administered including placement tests, make-up tests for curriculum students, and exams for some distance learning classes. Proctoring services are provided for students taking courses at other colleges or universities.

The Learning Skills Center is located within this department. Its emphasis is on math, English, science, and reading. Career planning and testing services are provided through this department. Services for disabled students are coordinated through the Academic Support Services as well. It offers free services such as tutoring in all subjects, placement testing, makeup testing, a quiet place for studying, proofreading, and there is special help offered for students with disabilities.

Career and Academic Planning Services (CAPS) Center

CAPS provides an environment where students can find answers for their academic questions and concerns. The Center was created to help Carteret Community College students in their first semester through the process of determining areas of interest and possible majors, to actual course selection and registration. Staff members also offer interest inventories and job information to students who are considering their future employment opportunities. All first-time college students are required to make an appointment with our CAPS staff to evaluate program of study/major choice, review placement tests, and register for first semester courses.

TRiO

This student-support program supports students that are first generation college students, disabled, or low-income. Their services include academic tutoring, instruction in basic skills, financial and personal counseling, assistance with securing admissions and financial assistance for enrollment in four-year institutions, career options, mentoring and special services for students with limited English proficiency. Eligible students are those that have academic needs and may be first generation college-bound, low income or disabled. Students selected for this program will participate in services including assessment, counseling, tutoring, advising, mentoring, financial aid, cultural activities, baccalaureate transfer initiative, and referral to appropriate agencies and services.

Learning Resources Center (LRC) / Library

The library's purpose is to reflect and support all programs of the college, serve as a gateway to information resources, promote information literacy, and enhance the learning experience for students, faculty, staff, and the local community. Toward these ends, the library is committed to the development of dynamic collections, the utilization of state-of-the-art educational technology, training in the area of information literacy, effective service to patrons, collaboration with instructional faculty, maintenance of professional standards, and community

outreach. The library provides books (print and electronic), newspapers, magazines, audio books and films. Computers are available for accessing the Internet, the online catalog, and a wide selection of electronic databases for doing research and word processing. The staff is readily available to assist students with their information and technology needs.

Workforce Investment Act (WIA) Grant, Title I Adult Program

Carteret Community College is the provider of the Workforce Investment Act Grant (WIA), Title I Adult Program Services. The WIA grant is the key element of the nations Workforce Development System. The focus of this system is employment, job retention, and quality wages. These services are located in the Carteret County JobLink Center, a one-stop customer service system. There is no charge for the WIA grant services. They provide services such as needs assessment, self-directed job search, labor market information, educational resources, skills assessment, career planning, and training services.

Distance Learning Technology Support

Students have at their disposal various ways to receive technology support. There is a help desk phone number (222-6196) available to students. There is a general help web page available to students. There are also help web sites available specifically for Email and Blackboard help. Students also have remote access to an online server that hosts all the required software necessary for a specific class. All students are automatically given access to Office XP. Additional software is also available for other courses. The instructor of those specific courses must notify the technology support personnel to give their specific students access to specific software.

Student Government Association (SGA)

The SGA consists of the Executive Board and the Student Senate. Every Activity Fee paying Carteret Community College student is a member of the SGA and represented by a voting senator from each curriculum area or a representative from each student organization. The SGA offers members the opportunity to build leadership and communication skills, to learn work-related responsibilities, and to create an efficient/effective office environment. SGA members participate in community and student service programs, SGA conference meeting, intercollegiate contests, student activities, socials, and public speaking events. The Executive Board and Student Senate meet twice a month.

Campus Book Store

The campus Book Store has available all required texts for the current semester. In addition, they also stock a wide selection of general school supplies such as paper, composition books, pencils, pens, hi-liters, binders, disks, calculators and much more.

2. Classroom & Laboratory Facilities

- A specialized networking lab with removable hard drives. This allows us to facilitate a variety of operating systems, and to quickly reconfigure between classes.
- Four classrooms containing 20, 20, 20 and 24 computers with networked printers and smart boards in each room.
- An open computer lab with a staff lab technician, 40 computers, 1 printer, and 1 scanner.
- A dedicated PC hardware repair lab with 10 training stations.

3. Library Collection

Databases

The library has the following databases:

SIRS—SIRS consists of three databases with full-text articles that cover a wide variety of topics. These topics include social issues, government documents and the arts.

NC Live— NC Live is a large database offering access to many databases as well as links to websites. NC Live provides multiple databases with full-text magazine and professional journal articles that cover many disciplines, national and local newspapers, reference sources and research materials. The links offered cover medical sites, encyclopedias, e-books, streaming video titles, testing preparation, art images, etc.

Liebert Online—Liebert allows electronic access to peer-reviewed journals; this database is full-text searchable and linked to external bibliographic databases.

[Magill's Medical Guide Online](#)—Magill's is an up-to-date and easy-to-use compendium of medical information suitable for student research as well as use by general readers, including patients and caregivers.

NC Live and SIRS are accessible from home, using a password. The passwords are available through the library. The other databases are available anywhere on campus.

Instructional Audiovisual Materials

The library has a large collection of instructional audiovisual materials for faculty or staff use. These are located in the closed stacks area behind the circulation desk. Faculty and staff are welcome to go into this area to find what they need. The materials are arranged by subject on the shelves. A list of these materials may also be viewed by subject in our library catalog. All

instructional AV materials must be checked out on your library account. Instructional AV materials for CIT are grouped under the Miscellaneous (MISC) heading.

Library Collections

The library collection includes both reference and circulating materials. The Library of Congress call numbers for CIT are the following:

- HF 5548—Office management
- QA71-90—Instruments and machines
- QA75-76.95—Calculating machines
- QA75.5-76.95—Electronic computers. Computer science
- QA76.75-76.76—Computer software
- T—Technology (General)
- TK—Electronics
- Z52-52.5 Word processing

Library Website

Library services and resources can be accessed online through the library's website at: www.carteret.edu/library.

Periodicals

The library has subscriptions to various magazines, newspapers, and professional journals. The latest issues can be found in the reading area of the library. Back issues are also available for many titles. (See also Databases) The library has current subscriptions to the following:

- Inside Photoshop
- PC World

Research Guides

Research guides are available on the library webpage for the subject areas covered by classes and curriculums here at Carteret Community College. Research guides are listings of books, reference materials, journals and online sites available through the library.

Bibliographic Services

The library provides bibliographic services upon request for any faculty member needing a list of library books, videos, periodicals, etc. in their subject area. Please contact the library if you need such a list for program re-accreditation, program review, library collection evaluation, or personal use.

Collection Development and Evaluation

The library accepts requests from faculty and staff for new library materials. Requests for curriculum materials receive first priority in purchasing. All new purchases are subject to available funding. After new materials are received and processed, notifications are sent via e-mail. To make a request for purchasing new books and AV materials, please contact the Librarian/Acquisitionist. Please prioritize multiple purchase requests

Curriculum Area Coordinators, or their designee, are responsible for regularly evaluating the library's collections for their subject area. This involves reviewing the library's books, reference books, instructional videos, and periodicals to determine if the materials are up-to-date and meet curriculum needs. Once the collection is evaluated, a Library Collection Evaluation Form should be completed and returned to the library. Requests for new materials to strengthen any weak areas in the collection may be made at this time. Out of date materials may also be withdrawn from the collection. Evaluations may be done by examining the materials in the library, or by reviewing a list of the materials provided through our bibliographic services. Contact the Librarian/Acquisitionist for more information.

Distance Learning Services

The following services are available to the college's distance learning students:

- Access to computers for login to Blackboard, word processing, research and student email
- Remote access to library catalog and online databases
- E-mail reference service: library@carteret.edu
- Mailing service to check out library materials
- Electronic Interlibrary Loan Request form & Patron Registration form
- Access to general library information, Magazine Indexes, library handouts and research guides via the library's website
- Online library tutorials and library skills exercise

Extended Checkout Periods for Faculty/Staff

Faculty and staff may check out books from the library's main book collection for six weeks. Instructional AV materials may also be checked out for six weeks. If a longer checkout period is needed for books or instructional AV, please contact the Library Cataloging Technician (or circulation desk) and a semester or a year checkout can be arranged. Reference books may be checked out for one day. Checkout periods on all other library materials, such as best sellers, movies, and audio books, are the same as for all library patrons.

Interlibrary Loan (ILL) Services

The library borrows materials from other libraries for your personal or professional interests through interlibrary loan. An ILL Agreement Form must be completed prior to requesting materials for the first time, and an ILL Request Form is completed for each item being requested. These should be submitted to the Library Technical Assistant.

Bibliographic Instruction Modules

The library provides bibliographic instruction in the use of the library's online catalog, electronic databases, and general library use. To schedule your class for an instruction session, please contact the Reference & Instruction Librarian at least one week in advance of when you would like it scheduled. Please provide your name and phone number, the course name and number, the number of students in your class, proposed date and time for the session(s), which resources you wish to have taught, and a copy of any applicable class assignment pertaining to library research. For online classes, please provide the librarian with your class roster and a due date for when your students should complete the assignment. Please choose from one of the following instruction options when making arrangements.

Option 1 - Traditional Seated Class with hands-on practice and electronic grading (with Clickers)

Please allow one full class period for a 1 hour and 20 minute class, or two full class sessions for a 50 minute class. The material presented here covers a set selection of resources and may not be adaptable to a specific class assignment.

Option 2 - Online Class via Blackboard with electronic grading

The material presented here goes more in depth and covers more information than can be presented in the seated classes. Please allow a minimum of two weeks for your class to complete this assignment. The material presented here covers a set selection of resources and may not be adaptable to a specific class assignment.

Option 3 - Traditional Seated Class on special subjects & hands-on practice

This option is for those classes needing instruction in specialized subject areas not included in a general instruction session (Options 1 or 2). The length of this class session will vary according to what you need demonstrated or taught. Please give the librarian a copy of the assignment so that we can select the best resources to demonstrate for the assignment.

Option 4 - Library Orientation & Tour

This session will include a tour of the library with a brief overview of library resources. This session is intended for classes without a specific research assignment. Please allow about 30 minutes or less for this session.

Option 5 - Guided Research Session

This is a **working session** where students who already have library research skills can come to the library as a class with their instructor to do actual research for their assignment. The length of this class session will vary according to your needs and class time available. Please provide the Librarian with a copy of your assignment in advance.

Online Tutorials

- Online tutorials can be accessed via the library's website at www.carteret.edu/library. There are tutorials on the following topics:
- Searching the Library Catalog
- Using the Library of Congress Classification System
- Searching NC Live and SIRS
- Evaluating Websites
- Citing Electronic Sources
- Citing Using the APA and MLA Formats

Social Networking Sites

Carteret Community College Library has a presence on Facebook, Twitter, and Delicious. They can be accessed via the library's website at www.carteret.edu/library.

Reserve Materials

Faculty may place library or personal materials on reserve for student use. Reserves are held at the circulation desk. To place items on reserve, a Reserve Request Form must be completed at the circulation desk for each item, and the item and form submitted to the Library Circulation Technician. Please allow 48 hours for processing reserves.

4. Equipment and Supplies

Most of the rooms used by CIT are general computer classrooms. However, the networking and hardware labs require near state-of-the-art equipment, and as such need yearly updates. Generally speaking, we like to purchase new CPUs, motherboards, and RAM for the hardware lab, along with wireless gear and other networking hardware for the networking lab. Recently, the IT Department has been using the hardware lab as a quick source of supplies (no hardware classes are being held this spring, so this makes sense), which makes it all the more imperative that we be able to purchase new equipment before future CTS120 classes can be held.

5. The Advisory Committee

Our Advisory Board is made up of a reasonable cross-section of current students, former students, local employers and local employees, along with county and DoD workers. However, many of them have served for several years in a row, and so we need to be looking for replacements.

6. Budget

Fiscal Year 2010 comes at a time of much turmoil in the economy of not only the county and state, but the country as a whole. Consequently, the CIT budget is somewhat reduced from previous years. \$300 is allocated for Office Supplies, \$300 for Instructional Supplies, and \$101 for Data Processing.

E. General

Specific industries or businesses served by the program include: local computer repair shops, the county government, the Fleet Repair Center aboard Cherry Point MCAS, and defense contractors.

Institutions to which your current students transfer: East Carolina University is a popular 4 year school that attracts some of our AAS graduates. UNC-Wilmington is another nearby school that attracts a number of former CCC students.

Significant developments since the last evaluation: This is the first evaluation.

F. Analysis

Review of program goals and objectives:

CIT has two Administrative Outcomes and two Program Level Outcomes which are addressed in a later section. Overall, the program appears to be doing well in achieving its goals.

The advisory committee has reviewed the program goals and objectives and they support the CCC mission, are consistent with the expectations of the community served, the purpose of the program as stated in the catalog and match the Institutional Level Learning Outcomes at CCC.

Review of Student Demographics and needs:

Beginning 2004/2005 there was a steady decrease in enrollment. The 3 year average in 04/05 was 66 students and as of 06/07 the 3 year average was 45.7 students. Fall 2007 began with 14 students; there were 15 in the spring and 7 during the summer session. Fall 2008 started again with 14 students and saw an increase to 19 for spring 2009. Hopefully, we have bottomed out, and we anticipate a steady increase in enrollment in future semesters as the local, state and federal economies recover.

The statistics gathered on student demographics point out that our minority students exceed the county population, on a percentage basis, but that the preponderance of students in this program are Caucasian males. One interesting trend is that percentage of full-time students has been on the rise since 2004, and now half our students attend CCC full-time.

The Program of Study for CIT is under constant review in an effort to maintain relevance to the local community, as well as follow computer industry trends. Local pre-requisites have been instituted so as to ensure students take required courses in a preferred order - this will help to ensure student success and retention.

Faculty needs

In order to keep up technological trends and software updates the faculty members need more Professional Development opportunities. These may include specialized hands-on training or possibly “back-to-industry” training (if available in the area). Most of the hands-on training requires travel to larger cities such as Charlotte, Raleigh, or even out of state such as Atlanta. Unfortunately, budget constraints limit the amount of proper Professional Development opportunities our faculty can acquire.

Section Two: Program Content

A. Definition of Program

The Computer Information Technology curriculum prepares graduates for careers in the information technology arena using computers and distributed computing to disseminate and collect information via the web.

Course work in this program covers the terminology and use of computers, network devices, networks, servers, databases, applications, programming languages, as well as web applications, site development and design. Studies will provide opportunity for students to learn related industry standards.

Graduates should qualify for career opportunities as designers, administrators, or developers in the areas of web applications, websites, web services, and related areas of distributed computing.

The program has an open door policy to all students. Many courses contain prerequisites or co-requisites of prior Computer Information Technology courses. Students must pass a Keyboarding and Computer Literacy placement test in order to take CIS110-Introduction to Computers, which is required as a prerequisite to other coursework.

B. Curriculum or Coursework

Both a 2-year AAS degree and a Diploma are available.

The required core courses offered in the program are:

- CIS110 INTRO TO COMPUTERS
- SEC110 SECURITY CONCEPTS
- BUS110 INTRODUCTION TO BUSINESS
- CIS115 INTRO TO PROG & LOGIC
- DBA110 DATABASE CONCEPTS
- NET125 NETWORKING BASICS
- NOS110 OPERATING SYST CONCEPTS
- NOS130 WINDOWS SINGLE USER (Windows 7)
- CTS120 HARDWARE/SOFTWARE SUP
- CTS285 SYSTEMS ANALYSIS & DESIGN
- NOS230 WINDOWS ADMIN 1 (Windows Server 2008)
- CTS289 SYSTEM SUPPORT PROJECT

Other courses (but substitutions may be acceptable) include:

- WEB110 Internet/Web Fundamentals
- CTS130 Spreadsheet
- CSC139 Visual BASIC Programming
- DBA112 Database Utilization
- CTS287 Emerging Technologies
- CTS288 Prof Practice in IT

It is perfectly feasible for a student to complete the Diploma, and then return later to flush out the degree by taking the English, elective, and capstone courses.

Distance Learning Courses Available

On the current 2008/2009 Computer Information Technology checksheet ([See Appendix A](#)), 12 (or 63%) out of 19 Business Tech courses are offered fully online. Of the 19 courses CIS115, NOS110, NOS130, NOS230, CSC139, CTS120, CTS288 and CTS289 (37%) are only offered in a traditional seated setting (with a Blackboard component) due to the hands-on nature of the subject matter. 7 (37%) courses are typically offered using the hybrid approach, with more

than 50% of the total instruction online. Courses typically offered using the hybrid approach include CIS110, DBA110, CTS285, BUS110, CTS130, WEB110, and SEC110.

C. External Accreditation (Non-applicable)

D. Innovations and diversity applied in curriculum

The CIT program underwent a statewide Curriculum Improvement Project (CIP) during 2004-2005 with approved changes implemented for Spring 2006. This CIP was done in cooperation with all IT programs across the state. The CIP project team worked in conjunction with consultants from the National Skills Standards Board to establish outcomes and develop courses that would address those outcomes. No major program changes have taken place since that time, but some local prerequisites have been put into place. SEC110 now has a local prerequisite of NET125, for example, and has been moved to the 2nd fall semester.

The inclusion of a programming language called Alice 2.0 within CIS115 Introduction to Programming and Logic has been a bit hit.

The Networking Lab, room 326, has two computer workstations with raised legs. This allows students with disabilities room to roll their wheelchairs under the table.

E. Testing and remedial coursework

Currently there are no selective criteria for program admission. Students take the placement tests during the admissions process (reading, math, algebra, keyboarding, and computer literacy) and they may begin the program immediately. There are courses that require prerequisites of adequate proficiency in all of those areas prior to taking those courses. For example, CIS 110 (which is one of the first core classes for the program) cannot be taken until a student shows proficiency of ENG 095, MAT 060, OST 080, and CIS 070. Students who do not place out of these courses must complete them before enrolling in that course.

Struggling students have access to the Academic Support lab and Academic Computer lab for extra help with coursework.

F. Evaluate Instructional Modalities

The CIT program offers a good mix of online, hybrid and seated instruction. Typically, some of the more challenging, hands-on courses are only offered in a seated, traditional setting - programming, networking, and operating systems classes fall into this category. One of the main reasons for this is that our networking lab room offers removable hard drives which enable students to 'push the envelope' without regard to potential negative impact on other students. A catastrophic failure only impacts that student. We certainly would not wish students to attempt the more radical procedures on their home computers.

G. Funding for curricular changes or offerings

Since the college began offering students a remote connection to software applications by using two Citrix servers, the licensing aspects have been simplified a great deal. This makes more efficient use of the limited number of product licenses the college must purchase for the various software applications. The Citrix solution allows students to utilize the latest applications without the financial burden being placed directly upon them.

The CTS120 course requires a lot of hands-on work by students installing and configuring hardware components. Breakage is a normal course of events, and so there is a certain amount of equipment that must be replaced each year. This takes a significant percentage of the yearly CIT budget.

H. Analysis

Course prerequisites and sequencing have been evaluated and changed to aid in student success and course completion. The effect of changing technology is that courses become outdated and must be phased out. The courses change quite often before the student can finish the program. Therefore, course substitutions must be done to replace courses that no longer exist. This makes it very confusing for the students to know which course to take and they often take courses they don't need. Adding to this confusion, the NC Community College System Office made extensive changes to this program in spring 2006. Prior to spring 2006, the program was called "Information Systems Technologies".

The local prerequisites instituted in 2009 will enable enforcement of a more strict sequencing of classes. Thus, students must now take CIS115 prior to CSC139, and CIS110 prior to SEC110. This will ensure student success in the more rigorous courses, and should enhance student retention also.

Section Three: Outcomes

A. Measuring Outcomes

The CIT program is dedicated to using AOs, POs, PLLOs and CLLOs in an attempt to capture meaningful data with which to make intelligent decisions about course and program content. Although the process of capturing and using this data is still in its infancy, we have nonetheless been able to utilize this process with some level of modest success.

We are privy to data captured via various sources by the Institutional Effectiveness office, industry-recognized certification attempts by students, graduation data from the Registrar, and other data.

B. Administrative Outcomes (AOs)

The AOs are listed in [Appendix B](#).

The preponderance of our students work either full- or part- time. Many have families to support, and other areas of their lives that conflict directly with school. We are concerned with getting them out into society quickly with the IT skills to pursue a living wage. Thus, one AO has to do with the time it takes to graduate a student once he/she has fully committed to the program. To assess this outcome, we are looking at data provided by the Registrar from Datatel. We know that historically it has taken on average 5 years to complete what should take 1 1/2 years - so this is an area of concern.

Another AO ensures our instructors are aggressively pursuing professional growth opportunities. We measure this by observing the reports submitted by each instructor on a yearly basis. We desire to see attendance at several workshops and/or conferences, in addition to attempts at achieving various industry certifications. The latter might include MS Office, CompTIA (especially A+, Net+ or Security+), or Microsoft Server certifications. Software and hardware changes are advancing at such a rate that technologies are out of date within just a few years, thus we need to ensure our instructors are current with their individual skills they bring to the table.

C. Program Outcomes (POs)

The POs are listed in [Appendix C](#).

We are interested in the overall rate at which students who attempt an actual industry certification exam actually do so. We simply keep in touch with students, advertise to students the utility and value of certification, advise those interested once we feel they may be ready, and then collect results on an individual basis. At one time we ran an Authorized Prometric Testing Center here at CCC, but had to close it down in 2005 due to a lack of volume. Students now must test either in Greenville or Richlands, and the exams cost in excess of \$150. Accordingly, a big part of this process is ensuring they are ready and confident when the time comes for them to certify.

Another PO deals with whether or not our students do, in fact, gain useful employment within a reasonable timeframe after graduating. With the present downturn in the US economy and resulting high unemployment rate, it is essential that our graduates have what it takes to get a leg up on the competition.

D. Program Level Learning Outcomes (PLLOS)

We have three PLLOs involving hardware, software and networking. Our students must be proficient in each of these areas before graduating. Rubrics for particular exercises and/or

exams are used to assess the level of expertise. For hardware, we use a hands-on exam during CTS120 Hardware/Software Support. The students actually build a functioning computer from scratch. NOS130 Windows Single User is used to evaluate the installation and configuration of operating system software, namely Windows Vista/Windows 7. Lastly, NET125 Networking Basics is used to evaluate whether students can correctly set up networks using routers, subnetting techniques and various protocols.

E. Follow-up of students served

Feedback is provided from program completers through use of a [graduate survey](#) and also a [employer survey](#) created for the Computer Information Technology program. Additionally, the Institutional Effectiveness office here at CCC surveys all graduates and this data is very helpful in determining the overall employability of our graduates.

F. Analysis (Use of results to improve program)

Administrative Outcomes:

A real eye-opener was that, on average, it has historically taken our students 5-years to complete a 2-year degree, once they were fully committed! We fully expect our current students to beat this average by a long margin; even so, this is an area we must be aware of. As previously noted, in the IT field technology changes so rapidly that it is absolutely essential our graduates are current with their skills. **We must advise and push our students to take as full an academic load as they can reasonably manage.**

The personnel who comprise our Advisory Board need to be dynamic leaders in the community in the area of IT. **We will push to turn over roughly half the membership of this committee every year in order to gain new ideas and fresh perspective.**

Program Outcomes:

Industry certifications lend an aura of expertise and authority when applying for a new job in the IT field. Many employers now use them as hard requirements to even be considered for a position, along with a 2- or 4- year college degree. The fact that 6 of 7 passed these very rigorous technical exams on the first try indicates we are teaching correct skills, so now we simply must get the numbers up while maintaining quality instruction. **We must continue to advise and cajole our students to attempt industry recognized certification examinations.** The current crop of CIT students due to graduate in 2011 number in excess of 15 - hopefully at least 10 of them will make the attempt. Of course, money is always an issue, and these exams do come with a steep cost.

Similarly, with the anticipated larger number of graduates in 2011 compared to the last 5 years, we should have a much better gauge of actual effectiveness in how many actually gain worthwhile employment in the IT field. Currently, the numbers are too small to hold any real

meaning. Nonetheless, our goal is that most, if not all, **our graduates in coming years be gainfully employed shortly after matriculating.**

Section Four: Need for Change

A. Strengths identified by students and external sources:

- The curriculum is geared toward business students; program adapts to meet the needs of businesses
- The variety of industry-recognized certificates (Microsoft, Cisco, CompTIA) for which students are prepared.
- Courses are taught so as to prepare students for a corporate/work environment.
- Many hands-on opportunities. Students can get their "hands dirty" on actual equipment. They achieve many small successes and build confidence by doing.
- Co-op opportunities – Carteret-Craven Electrical, the county government, other local businesses.
- The program allows students to follow their interests – programming, networking, hardware and software.

B. Weaknesses based upon students and external sources:

- Many students don't understand the rigor of the program before entering. it requires a lot of research and independent thought.
- The program could increase coordination with local high schools so as to offer better Dual Enrollment opportunities.
- Graduates need more and better employment opportunities in the local community.
- We run a small, generalized program. Larger schools may offer more specialized programs, such as Network Security, Gaming and the like.
- Some students did not like some of the online courses – too difficult to have realistic interaction with fellow students/instructors, plus much of the material lends itself to a more hands-on approach in the lab or classroom.
- Hardware for the CTS120 course needs to be replenished. Video cards, hard drives, and entire system units have been re-allocated by the CCC IT Department to keep other computer classrooms up and functioning.

C. Strategies for Change

The following will be employed over the next 12 months to make changes in the program based on data received during this program review process.

- Pursue more Dual Enrollment courses to entice local high school students. Possible courses include Visual Basic programming and hardware repair.
- Verify that students coded to this major are in fact valid, degree-seeking students. Monitor their progress closely, and ensure they are on track to graduate on time according to their desires. Strengthen our entire academic advising process.
- Seek out funding for replacement parts for the hardware lab. Upgrade software to include Office 2010 and Adobe Creative Suite 5.

Given that we are about to lose a full-time instructor (Glenda Chagaris) to retirement, and another instructor (Donna Jones) will be coming back to campus from Cape Lookout HS, take a fresh look at which instructors teach which subjects. Encourage cross-training and industry certification of instructors.

D. Action Plan

Recommendation #1: In order to stay current with industry standards (one of our program goals) we will acquire sufficient placement parts for the hardware lab, as stated on page 29.

Action: 1) Submit an ASAP request seeking funding. 2) Purchase additional items by using the CIT budget.

Responsibility: Curriculum Area Coordinator

Recommendation #2: Another of our program goals is to provide opportunities for faculty to stay current in their fields and in their teaching methods. Given the current dynamic situation with our instructors (see page 23) this is a prime opportunity to take a fresh look at who teaches which subjects, and to encourage cross-training.

Action: 1) Push our full-time faculty to seek out professional training opportunities. 2) Provide funding for those full time instructors who wish to attempt industry-recognized certification examinations.

Responsibility: Curriculum Area Coordinator

Recommendation #3: Hand-in-hand with recommendation #1 relating to hardware, we must also keep up to industry standards by providing the latest software. See page 29.

Action: Submit an ASAP request for funding to purchase sufficient licenses of Microsoft Office 2010 and Adobe Creative Suite 5 software.

Responsibility: Curriculum Area Coordinator

Recommendation #4: One program goal deals with strengthening partnerships with Carteret County's public and private K-12 schools. Accordingly, we shall pursue more Dual Enrollment courses to entice local high school students as per the SWOT findings on page 29. Any offerings would need to be over and above anything the high school students currently get via normal means.

Action: Arrange with local high schools to offer courses on days and times convenient to their more advanced students. Possible courses include Visual Basic programming and hardware repair.

Responsibility: Curriculum Area Coordinator

Section Five: Future Issues

A. Anticipated future curricular changes and needs

No major changes to the program of study are currently necessary. However, to keep up with the state-of-the art, there is a need to continually track industry norms and new technologies. Such things as solid-state hard drives and nanotechnology may very well impact us in the future.

B. Market trends within the program area

- The Computer Information Technology program stays up-to-date with current market trends by enhancing course topics already presented. Future market trends are leaning towards mobile computing: iPads, Kindle, netbooks.
- Cloud computing: taking applications such as Word off the local computer and placing them "someplace" (where physically? you don't care, nor does it matter) on the Internet.
- Web 2.0: social websites such as Facebook, Twitter, and SecondLife where users make up the content.

These trends are currently being addressed in CTS287 Emerging Technologies course, but may well become a major part of other courses if and when they take off.

C. Equipment, space, and faculty needs for future growth or continuation

There are no specific future equipment needs (except for the program's constant need to update computer systems to keep up with software minimum requirements). The facilities and space are adequate for our course needs.

Due to the diverse set of skills needed to keep up with computer industry trends, continuous faculty training is needed. No other curriculum taught at CCC has such a rapid rate of change in technology. Faculty need to be "cross-trained" across the board; currently, each instructor has his/her own area of expertise such as networking, programming, or Office applications.

D. Future Plans

After having discussed Dual-Enrollment possibilities with East Carteret High School and West Carteret High School counselors, the Computer Information Technology program will plan to move forward with offering courses such as Intro to Programming (CIS115), Visual Basic Programming (CSC 139), and possibly Hardware/Software Support (CTS120) at a time convenient to students from these schools. The program intends to promote Computer Information Technology courses for Dual-Enrollment more aggressively to all area high schools.

Appendix A: CIT Program Checksheet

COMPUTER INFORMATION TECHNOLOGY (A25260)

Associate in Applied Science Degree

Effective Fall Semester 2009-2010

Name _____

ID# _____

	GRD	CREDIT	THEORY	LAB	WORK EXP
FALL SEMESTER					
ACA 115	Success & Study Skills	1	0	2	0
CIS 110	INTRO TO COMPUTERS	3	2	2	0
ENG 111	Expository Writing	3	3	0	0
MAT 140	Survey of Mathematics (AND)	3	3	0	0
MAT 140A	Survey of Math Lab	1	0	2	0
	(OR)				
MAT 161	College Algebra (AND)	(3)	(3)	(0)	(0)
MAT 161A	College Algebra Lab	(1)	(0)	(2)	(0)
SEC 110	SECURITY CONCEPTS	3	3	0	0
WEB 110	Internet/Web Fundamentals	3	2	2	0
	TOTAL	17	11	6	0
SPRING SEMESTER					
BUS 110	INTRODUCTION TO BUSINESS	3	3	0	0
CIS 115	INTRO TO PROG & LOGIC	3	2	3	0
DBA 110	DATABASE CONCEPTS	3	2	3	0
NET 125	NETWORKING BASICS	3	1	4	0
NOS 110	OPERATING SYSTEM CONCEPTS	3	2	3	0
	TOTAL	15	10	13	0
SUMMER SEMESTER					
CTS 130	Spreadsheet	3	2	2	0
NOS 130	WINDOWS SINGLE USER	3	2	2	0
	*Humanities/Fine Arts Elective	3	3	0	0
	TOTAL	9	7	4	0
FALL SEMESTER					
CSC 139	Visual BASIC Programming	3	2	3	0
CTS 120	HARDWARE/SOFTWARE SUP	3	2	3	0
CTS 285	SYSTEMS ANALYSIS & DESIGN	3	3	0	0
DBA 112	Database Utilization	3	2	2	0
ENG 114	Profess. Research/Reporting	3	3	0	0
NOS 230	WINDOWS ADMIN 1	3	2	2	0
	TOTAL	18	14	10	0

SPRING SEMESTER			GRD	CREDIT	THEORY	LAB	EXP
CTS	287	Emerging Technologies	---	3	3	0	0
CTS	288	Prof Practice in IT	---	3	2	2	0
CTS	289	SYSTEM SUPPORT PROJECT	---	3	1	4	0
		**Major Elective	---	3	1-3	0-4	0
		**Social/Behavioral Science Elec.	---	3	3	0	0
		TOTAL		15	10-12	6-10	0

TOTAL CURRICULUM HOURS: 74

NOTE: COURSES IN BOLD & ALL CAPS ARE REQUIRED CORE COURSES. NO SUBSTITUTIONS ALLOWED.

ELECTIVES

* HUMANITIES/FINE ARTS ELECTIVE (Select One)							
ART	111	Art Appreciation		3	3	0	0
ENG	131	Introduction to Literature		3	3	0	0
HUM	115	Critical Thinking		3	3	0	0
HUM	120	Cultural Studies		3	3	0	0
** MAJOR ELECTIVES (Select One)							
BUS	137	Principles of Management		3	3	0	0
NET	126	Routing Basics		3	1	4	0
WEB	111	Web Graphics (was ITN-110)		3	2	2	0
WEB	120	Intro Internet/Multimedia (was ITN-120)		3	2	2	0
WEB	140	Web Development Tools (was ITN-140)		3	2	2	0
*** SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (Select One)							
ECO	251	Principles of Microeconomics		3	3	0	0
ECO	252	Principles of Macroeconomics		3	3	0	0
PSY	150	General Psychology		3	3	0	0

- ⊙ Placement out of developmental courses required.
- ⊙ Courses numbered 0-99 are developmental and will not count toward graduation requirements.
- ⊙ Prerequisite: course(s) required before enrollment in a course.
- ⊙ Co-requisite: course(s) required to be taken with a course.

Appendix B. Administrative Outcomes

ADMIN #1

What is being measured:

Students entering the CIT program will successfully complete it in a timely manner.

How it is being measured:

Retention data provided by IE.

What constitutes success of the outcomes (benchmarks):

80% of students who have completed 15 hours of coursework will earn a degree within 2 years.

When it is being measured:

At the end of each spring semester

Results of assessments: Looking at data assimilated since 1997, overall only 11% (10 of 92) of students met the target. If we relax the standard a bit, and consider those who completed the degree within 8 semesters (after already having completed 15 hours) we still only have 35 of the 92 (38%) completing the program in this relaxed time limit. The bottom line is that on average our CIT student is taking over 10 semesters, 5 years, to complete their degree!

Use of results: The excessive delay in earning a 2-year degree is of particular concern given the volatile nature of the CIT field; the state-of-the-art changes so rapidly that much of what a student learns is obsolete 5 years later. Advisors must push students whenever possible to ensure timely completion of the degree. The data provided covers over a decade, and does not include recent graduates.

Anecdotal evidence suggests that our current batch of students will fare much better.

While continuing to push our students hard, we will relax this AO to indicate "50% of students who have completed 15 hours of coursework will earn a degree within 2 1/2 years".

ADMIN #2

what is being measured:

Increased participation in the Lay Advisory Committee.

How it is being measured (What assessment is used to measure progress of the outcomes):

Examination of the minutes of Lay Advisory Committee meetings..

What constitutes success of the outcomes (benchmarks):

At least two participants from each of the following categories: present student, former student, business owner, business employee

When it is being measured:

At the end of the Spring semester.

Results of assessments: We currently meet the standard. However, the same members have been on the board for several years. We haven't met as a group since the SWOT held during the fall of 2009.

Use of results: There is very little incentive for a local businessperson to sit on our board, unless they also happen to have a connection to the college, or perhaps are looking to hire in the immediate future.

At the very least, the plan is to offer them a good meal in exchange for their periodic input. Additionally, we will aggressively pursue new candidates to sit on this board, and attempt to replace half of them each year.

Appendix C Program Outcomes

Program Outcome #1

What is being measured:

Graduates from the CIT Program will successfully find employment in the computer technology field.

How it is being measured (What assessment is used to measure progress of the outcomes):

Graduate surveys conducted by the Institutional Effectiveness Office.

What constitutes success of the outcomes (benchmarks)

Within 6 months of graduation 90% of graduates will be employed.

Results of assessments: The 2008/2009 survey had only 3 graduates return the form. Of those 3 bodies, 2 were employed, were entirely satisfied with the education received, and would do it all over again. All three had met their goals, and were generally very satisfied with their overall experience at CCC.

Use of results: We will have a new crop of graduates who will matriculate in May, 2010. Prior to then we will ensure we have valid contact information for each of them, to enable us to track their progress in the future.

Program Outcome #2

What is being measured:

Students will have a high rate of success in becoming certified by CompTIA, Microsoft, Cisco, and others.

How it is being measured (What assessment is used to measure progress of the outcomes):

Collection of copies of examination results.

What constitutes success of the outcomes (benchmarks)

90% of students will pass industry -recognized certification examinations on their first attempt.

When it is being measured:

At the end of each Spring semester.

Results of assessments: For the Fall 2009/Spring of 2010 academic year, we had two of two pass the Network+ exam, one of one pass the Security+ exam and 3 of 4 pass the A+ exam. The

overall passing rate was 85.7%, or 6 of 7.

Use of results: Each time a student passes, we place a copy of the actual certification in the Networking Lab for all to see. This gives a nice morale boost to the awardee, but also serves as motivation for those contemplating certification. One failed exam (the student passed on his second attempt) out of 7 attempted should be considered a success, even though the desired 90% rate was not achieved. This is the first year we have really pushed the cert. exams since we lost our Prometric Testing Center in 2005, and presumably more students will make the attempt in the future now that they have seen others succeed.

Appendix D. Graduate Survey

Carteret Community College

Computer Information Technologies Program

3505 Arendell Street

Morehead City, NC 28557-2984

GRADUATE SURVEY

(PLEASE PRINT CLEARLY)

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

TELEPHONE: _____ E-MAIL: _____

1. Are you currently employed in a field relating to your degree? Yes _____ No _____
2. If you are not employed in your field, please indicate the reason below and return this form, completed only to this point, in the envelope provided.

3. If you are employed in the field, please indicate your employment status (check all that apply)

Full-time _____ Part-time _____ Freelancing/Self-employed _____

CURRENT EMPLOYER: _____

EMPLOYER ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

TELEPHONE: _____ WEBSITE: _____

MY CURRENT JOB TITLE IS:

START DATE OF CURRENT EMPLOYMENT:

PLEASE CIRCLE ALL TECHNICAL SKILLS USED IN YOUR CURRENT POSITION:

Databases	Programming
Server Administration	Computer Security
PC Repair	Networking
Operating System Software	Application Software

PLEASE CHECK ALL THAT YOU ARE USING IN YOUR POSITION CURRENTLY:

Office Suite:

MS Office 2003 _____ MS Office 2007 _____ Other please list) _____

Server Operating Systems:

Windows Server 2000/2003 _____ Windows Server 2008 _____

Unix/Linux (please list flavor) _____ Other (please list) _____

Programming:

PHP _____ Visual Basic _____ Java _____ C++ _____ Other (please list) _____

Database Tools:

Access _____ MySQL _____ Oracle _____ Other (please specify) _____

Desktop Operating Systems:

Windows _____ Unix/Linux _____ Mac _____ Other (please specify) _____

Networking:

Wireless _____ Fiber Optics _____ Ethernet _____ Switches _____ Routers _____

HOW DID YOU SECURE THIS EMPLOYMENT?

	I had the position while enrolled in the program		Staffing agency assisted in getting the position
	School placement assisted		Networking with others in the field
	Answered classified ad or online ad		I was promoted after receiving my degree
	Internship/ Co-op resulted in this position		Other (please specify)

PLEASE INDICATE YOUR ANNUAL SALARY RANGE:

Less than \$20K

\$60K - \$80K

\$20K - \$40K

\$80K - \$100K

\$40K - \$60K

Greater than \$100K

PLEASE INDICATE WHAT ADDITIONAL BENEFITS ARE OFFERED BY YOUR EMPLOYER:

Medical Insurance

Paid Continuing Education

Dental Insurance

Overtime Pay

Vision Care

Membership dues for professional

Life Insurance

Paid parking/public transportation

Paid Vacation

Private Office

Retirement Plan

Cubicle Office

Bonus Pay

Other (please specify)

PLEASE RATE THE EFFECTIVENESS OF YOUR EDUCATIONAL EXPERIENCE WHILE A STUDENT AT THE CARTERET COMMUNITY COLLEGE CIT PROGRAM:

	Excellent	Good	Average	Fair	Poor	Not Applicable
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Quality of Computer Information Technology classes (generally)						
Quality of instructors (generally)						
Preparation for a Computer Information Technology related						
Placement assistance						
Variety of courses offered						
Quality of on-campus library						
Quality of computer training						
Quality of academic advising assistance						
Flexibility of classes and/or program						
Overall quality of your personal educational experience at CCC						

Please list any professional certifications you currently hold:

Please list any required certifications for your position:

Please list any additional employer sponsored training you have received:

Reflecting on your experience at CCC, which program courses did you find most helpful?

Which classes do you believe should be eliminated from the program?

Why?

Which classes need to be improved?

How? _____

Any suggestions you may have for additional courses and/or activities that could be offered?

PLEASE RETURN THIS SURVEY IN THE RETURN ENVELOPE PROVIDED. THANK
YOU FOR PARTICIPATING IN THIS SURVEY. YOUR FUTURE SUCCESS IS
IMPORTANT TO THE PROGRAM

PLEASE STAY IN TOUCH!

Appendix E. Employer Survey

Carteret Community College

Computer Information Technologies Program

3505 Arendell Street

Morehead City, NC 28557-2984

EMPLOYER EVALUATION

This survey is designed to help program faculty determine their program's strengths and those areas that need improvement. All data will be kept confidential and will be used for program evaluation purposes only. We request this survey be completed by the graduate's immediate supervisor.

BACKGROUND INFORMATION

Name of Graduate (Optional): _____

Length of employment at time of survey: _____ years and _____ months

Place of employment: _____

Job Title of graduate: _____

Name and title of evaluator completing this form: _____

Please mark the response that best describes your observations:

	Excellent	Good	Fair	Poor	Not Applicable
1. The ability to demonstrate computer skills in the following areas:					
A. Programming (VisualBasic, Java)					

B. Networking computers					
C. PC repair/maintenance					
D. Software installation/configuration					
E. Proficiency with using software applications					
2. Written and oral communication skills					
3. Ability to function as a team member					
4. Professionalism (appearance/attitude)					
5. Dependability					
6. Adaptation to change					

7. Problem solving/critical thinking skills					
8. Contributes to a positive environment in the department					
9. Is self-directed and responsible for his/her actions					
10. Accepts supervision and works effectively with supervisory personnel					
11. The OVERALL quality of this graduate.					

ADDITIONAL COMMENTS

What qualities or skills did you expect of the graduate upon employment that he/she did not possess?

Please provide comments and suggestions that would help this program to better prepare future graduates.

What are strengths of the graduate(s) of this program?

Please list any additional technical skills the graduate is using in his/her job such as PC maintenance, networking, computer security, website creation, database management, etc.

Would you rehire this graduate? Yes _____ No _____
Why/ Why not?

Thank you for your assistance! YOUR INPUT IS STRICTLY CONFIDENTIAL AND IS USED FOR PROGRAM REVIEW PURPOSES ONLY!