Program Purpose

The Computer Information Systems program prepares students for entry level employment as a computer technician. These persons will perform tasks such as basic computer repair and troubleshooting, basic network design, administration, and troubleshooting, and software management tasks. The program consists of 64-66 semester hours depending on the exact courses chosen. There are 39 semester hours of pre-professional, major, and elective courses (Area V) with the remaining courses consisting of selected general education courses (Areas I-IV).

Program Learning Outcomes

Graduates of the Computer Information Systems (CIS) program are able to:

- Demonstrate knowledge of computer terminology and components (CIS 149)
- Explain basic computer operating systems (CIS 146)
- Demonstrate the ability to use word processing, spreadsheet, presentation graphics, and database software (CIS 146)
- Install, configure, and upgrade a computer operating system (CIS 268)
- Diagnose and troubleshoot an operating system (CIS 268)
- Install and troubleshoot computer hardware (CIS 269)
- Demonstrate the ability to use the polynomial, rational, exponential, and logarithmic functions of algebra (MTH 112)
- Demonstrate the ability to employ algorithmic design techniques (CIS 150)
- Demonstrate the ability to algorithmically solve problems using sequence, selection, and repetition control structures (CIS 150)
- Demonstrate knowledge of networks and data communications technology (CIS 199)
- Explain and utilize C++ programming (CIS 251)
- Develop a hierarchical class structure necessary to the implementation of an object-oriented software system (CIS 212 or 251)
- Exhibit a positive work ethic (WKO 106)

Assessed Needs and Assumptions

According to the United States Department of Labor (www.bls.gov), the median annual wage for Computer Support Specialists is $46,260. Job openings for computer support specialists are expected to increase approximately 18% for the period 2010-2020. Network Support / Computer Systems Administrators job openings have a median salary of $69,160 per year. Job openings are projected to grow a total 28 percent for the period 2010-2020. Particularly strong growth for both occupations is expected in health care with the increase in the use of information
technology for this field. Strong growth is expected in the fields of information security analysis, web development, and network architecture. Salaries in these fields average $73,710 with growth of 22% expected for the period 2010-2020. All of these salaries compare favorably with the average annual wage for all occupations of $33,840. Computer programmer job openings have a lower growth rate of 12% per year. The program does not currently emphasize programming skills.

In the State of Alabama, the Alabama Department of Industrial Relations reports that computer support specialists and network/computer systems architects and administrators are listed in Alabama’s Hot 40 Jobs. Data indicate a wage of $14.19-$25.83/hr for Computer Support Specialists and $32.88-$38.19/hr for Network and Computer Systems Administrators.

Structure

The Computer Information Systems program offers a single A.A.S. program option including program core courses required by the Alabama Department of Postsecondary Education with additional courses added to provide students with a comprehensive overview of the knowledge necessary to meet the program learning outcomes listed above. Courses and a certificate program in web design have been added to give students options in the faster growing fields. A cybersecurity certificate program will be implemented in the fall 2013. This new certificate program will provide students with more options in the fastest growing fields.

Accreditation

The Computer Information Systems program at Northeast Alabama Community College is covered under the institutional accreditation by the Southern Association of Colleges and Schools. The accreditation was reaffirmed in 2005.

Assigned Faculty

The Computer Informational Systems program currently has three full-time faculty teaching full or part time within the program and two adjunct instructors. Sam Dobbs, full-time instructor and division director of the Business and Computer Information Systems Division, has a Master’s Degree in Business Administration and a Master’s Degree in Management Information Systems. He has 24 years experience in computer technology support and instruction at Northeast Alabama Community College. He teaches an 80% class load within the Computer Information Systems department. Professional development within the last two years includes workshops in online class development with Blackboard and self-study materials in online and virtual machine technologies. He has attended conferences in educational technology including the Alabama Educational Technology Conference and the Educause Regional Technology conference.

Perapon Pongpakdee, full-time instructor of computer information systems, has a Master’s Degree in Computer Science. He has 36 years of experience in programming and instruction at
Northeast Alabama Community College. He has attended campus workshops on instructional
design using Blackboard and has completed self-study workshops in object oriented
programming techniques. He teaches 100% of his classes within the Computer Information
Systems Department.

Jay Massey, instructor of computer information systems, has a Master’s Degree in Computer
Science. He has 8 years of experience as an adjunct instructor and 2 years of full-time instruction
at Northeast Alabama Community College. He has extensive knowledge of program
development in private industry. He teaches 100% of his classes in the Computer Information
Systems Department.

Julie Hester, adjunct instructor of computer science has a Master’s Degree in Information
Systems. She has 5 years of experience as an adjunct instructor at Northeast. She carries
experience as an office manager and computer support activities in private industry. She has
completed on-campus workshops in online class development and Blackboard in the last two
years.

Richard Sharp, adjunct instructor of computer science has a Master’s Degree in Public and
Private Management with additional coursework in information systems. He has 5 years of
experience as an adjunct instructor at Northeast. He is employed in private industry as a
database administrator team leader in the banking industry. He has completed on-campus
workshops in online class development, Blackboard, and classroom technology in the last two
years.

Ongoing Costs for the Program

The major ongoing costs for this program are the installation and maintenance of two computer
labs used by the program and salaries of the instructors. One lab is used for computer
applications and programming and the other lab is used for networking, hardware, and software
support. Hardware for the applications and programming lab are included in the campus
computer replacement plan that provides for replacement of computers every 3-5 years. Costs
for the applications and programming lab replacement are approximately $35,000 for each
replacement. This equates to $11,666 per year. The networking, hardware, and software support
lab is populated by refurbished computers from other lab replacements. The cost of maintaining
this lab is minimal since the computers have already served their useful time in another location.
Most software costs are covered by the Microsoft Campus Agreement that provides unlimited
use of designated Microsoft products at a fixed cost. This cost is based on overall campus FTE,
and there is no additional cost for computer information systems. All additional costs are
covered by a yearly budget of $7,000-10,000. Salaries for fiscal year 2012 in the computer
information systems were reported by the business office to be $272,143 with benefits cost of
$70,911. This amount is expected to be relatively constant since no new positions are planned at
this time.
Instructional Quality and Enhancements/Curriculum Design

The Computer Information Systems program includes a total of 25-26 semester hours of general education classes. These classes include English Composition I (3 hours), Fundamentals of Public Speaking (3 hours), a humanities and fine arts elective (3 hours), a math elective (3 hours), two computer science and natural science electives (7-8 hours), and history, social science, and behavioral science electives (6 hours).

All of the syllabi in the Computer Information Systems curriculum have been approved by the Student Learning Outcomes Committee. All class syllabi are posted on the NACC website. These syllabi are used by the instructors to develop course handouts that are given to all students at the beginning of each course. Course reviews are accomplished on a five-year rotating schedule with approximately 20% of the classes receiving a review each year. These reviews are all current as of this time.

Courses are scheduled according to the following schedule. Courses used in general education requirements are scheduled every term. This currently includes CIS 146 Microcomputer Applications and CIS 149 Introduction to Information Systems. All other required courses are taught at least once per year both day and night. At least three electives are scheduled each term. The rotation allows for a student to finish within 4 semesters if the student takes advantage of all available offerings.

Physical facilities are adequate as of this time. The computer science lab was updated in Fall 2012 as part of the campus computer replacement plan. The networking, hardware, and software lab was updated in Spring 2011 utilizing refurbished equipment from other lab replacements. All software is of current versions. Adobe Design Suite Software and Maya computer modeling software have been purchased to support elective classes in web design and graphics. The computer information systems department makes limited use of the library for assignments and its facilities are adequate for the needs of the department.

Advisory Council

An advisory council is in place for the Computer Information Systems program consisting of four practitioners in both Dekalb and Jackson Counties. Faculty members from the program are also invited to attend meetings. The committee is given a presentation of activities within the program for the year and the members then make recommendations and suggestions for improvement or redirection.
Enrollment and Completions

Enrollment and completions for Fall 2009 though Summer 2012 were as follows:

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Number Enrolled</th>
<th>Number of AAS Awards</th>
<th>Number of Certificate Awards</th>
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<tr>
<td>2009-2010</td>
<td>74</td>
<td>10</td>
<td>3</td>
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<tr>
<td>2010-2011</td>
<td>79</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>2011-2012</td>
<td>82</td>
<td>13</td>
<td>8</td>
</tr>
</tbody>
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Job Placement Rates, Employer/Student Satisfaction

Out of the 37 students that have graduated during the three-year period examined, 14 are working in the same or a related field, 10 are working in an unrelated field and 6 are continuing their education. Of these same 37 students, 5 are unemployed and the remaining students could not be reached. Student Satisfaction surveys indicate 84% of students responding “Satisfied” or “Very Satisfied” with the program. A telephone survey of employer indicated satisfaction with the quality of graduates employed.

Findings of Review

During the review period, the Computer Information Systems program has been popular among students, with an enthusiastic student body. Subject matter taught is updated regularly and is current with respect to the state of the industry. Efforts to increase student graduation by offering new material and increasing upper level course offerings rates have been successful. The average number of graduates has doubled in the last 5 years. Current efforts are being focused on implementing course offerings in security and graphics to reflect changes in the job marketplace. The major area where improvement is needed is in the area of job placement. Efforts to identify and place students in degree-related employment must be a priority.
Report Affirmed by:

_______________________________________________ ________________
Sam Dobbs, CIS Instructor

_______________________________________________ ________________
Dr. Joe Burke, Vice President/Dean of Instruction

Date reviewed by Curriculum Committee: _____________________________
Curriculum Committee Chair: __________________________________

Rodney Land, Chemistry Instructor