

## **Associate in Applied Science Degree in Computer Science Programming Option**

### **Purpose of the Curriculum**

The Associate in Applied Science in Computer Science – Programming Option is intended to prepare entry-level computer programmers to create and maintain programs and systems for business, industry, health care, education, and government service. It is specifically designed to train people who seek employment for the first time and for people already employed in some aspect of information technology who want to upgrade their knowledge and skills. Graduates should be able to transfer their knowledge about computer systems and languages to different systems as technological changes occur.

### **Program Learning Outcomes**

1. The student will have fundamental knowledge of the information technology field.
2. The student will have an in-depth understanding of program logic and design.
3. The student will have programming skills in at least four programming languages.
4. The student will understand basic networking technologies.
5. The student will have skills in developing and implementing relational databases.
6. The student will have an understanding of multiple operating systems.
7. The student will understand the systems analysis and design process and the Systems Development Life Cycle.

## Curriculum/Suggested Sequence

<b>FIRST SEMESTER</b>		<b>CREDITS</b>
MATH	121 Pre Calculus	4
ENGL	101 English Composition 1	3
COLL	101 College 101	3
ITEC	101 Principles of Information Systems	3
*	Gen Ed - Humanities or Fine Arts	<u>3</u>
		16

<b>SECOND SEMESTER</b>		
CS	109 Foundations for Programming	3
CS	242 Intermediate Web Site Design	3
CS	240 Data Communications <b>OR</b>	3-4
ITEC	183 Network +	
ENGL	102 English Composition <b>OR</b>	3
ENGL	112 Technical Writing	
BST	106 Introduction to Business	<u>3</u>
		15-16

<b>THIRD SEMESTER</b>		
CS	214 Introduction to Visual Basic <b>OR</b>	3
CS	260 Introduction to C++ Programming	
CS	210 Fundamentals of Operating Systems	3
ECON	201 Principles of Economics <b>OR</b>	3
ECON	202 Principles of Economics	
CS	230 Data Base Management Systems	3
*	1 Restrictive Elective	3
*	Gen Ed Science Requirement	<u>3</u>
		18

<b>FOURTH SEMESTER</b>		
BA	203 Business Statistics	3
BA	215 Accounting	3
CS	280 Introduction to Systems Analysis	3
MATH	205 Discrete Mathematics	3
*	2 Restricted Electives	<u>6</u>
		18

Total hours required 67-68

**Restricted Electives:** Courses selected from CS (excluding CS 106).  
BA/MIS majors may substitute up to two from BA 209, BA 300, BA 304 or BA 345.

### CS Restricted Elective Courses:

CS 202 Fortran Programming I	CS 204 Intro to Cobol
CS 220 Elect. Spreadsheets & Charts Topics	CS 216 Visual Basic Advanced
CS 266 Introduction to JAVA	