

COMPUTER SCIENCE – GENERAL
Associate in Science (AS) Degree

Minimum Credits: 61.0
Contact Hours: 65.0

INTRODUCTION: This program is designed for students who plan to continue their education in pursuit of a four-year degree in Computer Science. The program includes all of the necessary courses to qualify for the MTA Articulation Agreement. All facets of business find computers and information systems to be essential. Qualified individuals are needed to relate the problem-solving abilities of a computer system to a company's operations. In this curriculum, students are preparing to work as computer programmers, programmer-analysts, systems analysts, network administrators, software application developers, database administrators, business intelligence analyst, web developers, software systems developers or computer systems engineers in business and industry.

GENERAL EDUCATION COURSES (MEETS GRADUATION REQUIREMENTS AND MTA)

| COURSE | TITLE | CREDITS | CONTACT HOURS |
|---|---|------------|----------------|
| ENG 111 or ENG 121 | English Composition I or Advanced English Composition I | 3.0 | 3.0 |
| ENG 112 or ENG 122 | English Composition II or Advanced English Composition II | 3.0 | 3.0 |
| PLS 221 | American Government & Politics | 3.0 | 3.0 |
| MTH 123 | College Algebra & Analytic Trigonometry ^{AB} | 4.0 | 5.0 |
| | Social Science Requirement | 3.0 | 3.0 |
| | Humanities/Fine Arts Requirements | 6.0 | 6.0 |
| | Natural Science Requirement | 3.0-4.0 | 3.0-4.0 |
| | Laboratory Science Requirement | <u>4.0</u> | <u>4.0-5.0</u> |
| GENERAL EDUCATION CREDITS/CONTACT HOURS: | | 29.0-30.0 | 30.0-32.0 |

CORE PROGRAM COURSES (MEET WITH ACADEMIC ADVISOR TO DETERMINE CORE PROGRAM COURSES FOR CONCENTRATION AND TRANSFER)

| COURSE | TITLE | CREDITS | CONTACT HOURS |
|--|--|------------|---------------|
| MTH 131 | Analytic Geometry & Calculus I ^A | 5.0 | 5.0 |
| MTH 132 | Analytic Geometry & Calculus II ^A | 5.0 | 5.0 |
| MTH 221 | C++ Programming ^A | 4.0 | 5.0 |
| CIS 206 | Object Oriented Programming ^A | <u>3.0</u> | <u>4.0</u> |
| CORE PROGRAM CREDITS/CONTACT HOURS: | | 17.0 | 19.0 |

SUGGESTED ELECTIVES (MEET WITH ACADEMIC ADVISOR TO DETERMINE ELECTIVES FOR CONCENTRATION AND TRANSFER)

| COURSE | TITLE | CREDITS | CONTACT HOURS |
|--|---|-------------|------------------|
| Electives will change depending on area of concentration and the specific 4-year transfer institution's requirements. Consult your ACC academic advisor. | | | |
| CNS 170 | PC Repair & Maintenance ^A | 4.0 | 5.0 |
| CNS 150 | Networking Fundamentals ^A | 3.0 | 4.0 |
| MTH 231 | Analytic Geometry & Calculus III ^A | 5.0 | 5.0 |
| | General Elective | <u>3.0</u> | <u>3.0-4.0</u> |
| ELECTIVE CREDITS/CONTACT HOURS: | | <u>15.0</u> | <u>17.0-18.0</u> |
| TOTAL MINIMUM PROGRAM CREDITS/CONTACT HOURS: | | 60.0 | 65.0 |

SUGGESTED SEQUENCING OF COURSES:

| YEAR 1 (FALL SEMESTER) <u>14.0</u> CREDITS | | CREDITS | CONTACT HRS | YEAR 1 (SPRING SEMESTER) <u>17.0</u> CREDITS | | CREDITS | CONTACT HRS |
|--|---------------------------------|------------|-------------|--|------------------------------|------------|----------------|
| MTH 123 | College Algebra & Analytic Trig | 4.0 | 4.0 | MTH 131 | Analytic Geometry & Calc I | 5.0 | 5.0 |
| CNS 170 | PC Repair & Maintenance | 4.0 | 5.0 | ENG 112 or ENG 122 or SPE 123 | | 3.0 | 3.0 |
| CNS 150 | Networking Fundamentals | 3.0 | 4.0 | Natural Science Requirement | | 3.0-4.0 | 3.0-4.0 |
| ENG 111 or ENG 121 | English Comp | <u>3.0</u> | <u>3.0</u> | Humanities/Fine Arts Requirement | | 3.0 | 3.0 |
| TOTAL | | 14.0 | 16.0 | General Elective | | <u>3.0</u> | <u>3.0-4.0</u> |
| | | | | TOTAL | | 17.0-18.0 | 17.0-19.0 |
| YEAR 2 (FALL SEMESTER) <u>15.0</u> CREDITS | | CREDITS | CONTACT HRS | YEAR 2 (SPRING SEMESTER) <u>14.0</u> CREDITS | | CREDITS | CONTACT HRS |
| MTH 132 | Analytic Geometry & Calc II | 5.0 | 5.0 | MTH 221 | C++ Programming | 4.0 | 5.0 |
| | Social Science Requirement | 3.0 | 3.0 | MTH 231 | Analytic Geometry & Calc III | 5.0 | 5.0 |
| | Laboratory Science Requirement | 4.0 | 4.0-5.0 | PLS 221 | American Gov't & Politics | 3.0 | 3.0 |
| CIS 206 | Object Oriented Programming | <u>3.0</u> | <u>4.0</u> | Humanities/Fine Arts Requirement | | <u>3.0</u> | <u>3.0</u> |
| TOTAL | | 15.0 | 15.0-16.0 | TOTAL | | 15.0 | 16.0 |

NOTES:

^A Included in occupational specialty: A grade of 2.0 or higher must be maintained in each occupational specialty course.

^B Students must meet placement requirements, prerequisite requirements, or have instructor permission.