

Computer Programming and Analysis, AS

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Purpose

The Associate in Science (AS) in Computer Programming and Analysis program prepares students for further education and careers such as entry level programmers, programmer specialists, computer programmers, senior programmers, chief business programmers, programmer analysts, and information systems programmers.

The content prepares individuals to analyze business situations and to design, develop and write computer programs; to store, locate, and retrieve specific documents, data, and information; analyze problems using logic/analysis tools, code into computer language; test, monitor, debug, document and maintain computer programs.

This program is designed to help students obtain the skills needed to earn various industry-recognized certifications.

Program Structure

This program is a planned sequence of instruction consisting of 60 credit hours in the following areas: 18 credit hours of General Education Requirements and 42 credit hours Computer Programming and Analysis Core Requirements (which includes 6 credit hours of a Programming Language and 6 credit hours of Specified Electives).

The Computer Programmer Certificate is a 33 credit hour certificate and the Computer Programming Specialist Certificate are comprised of core courses in the AS Computer Programming and Analysis degree. These certificates can be earned before the student has earned the AS Computer Programming and Analysis degree.

Course Prerequisites

Many courses require prerequisites. Check the description of each course in the list below to check for prerequisites, minimum grade requirements, and other restrictions related to the course. Students must complete all prerequisites for a course prior to registering for it.

Graduation

Students must fulfill all requirements of their program major in order to be eligible for graduation. Students must indicate their intention to attend commencement ceremony, by completing the Commencement Form by the published deadline.

General Education Requirements: 18 Credit Hours

- [ENC 1101 - Composition I](#) 3 credits
- [ENC 1102 - Composition II](#) 3 credits
- [SPC 1017 - Fundamentals of Speech Communication](#) 3 credits Or
- [SPC 2608 - Introduction to Public Speaking](#) 3 credits
- [PHI 2100 - Introduction to Logic](#) 3 credits
- Any General Education Mathematics Course ([MAC 1105](#) -College Algebra or [STA 2023](#) -Statistical Methods I recommended) 3 credits
- Any General Education Social Sciences Course ([ECO 2013](#) - Principles of Macroeconomics recommended) 3 credits

Computer Programming & Analysis Core Requirements: 42 Credit Hours

- [CGS 1100 - Computer Applications for Business](#) 3 credits*
- [CIS 2321 - Systems Analysis and Design](#) 3 credits
- [COP 1000 - Introduction to Computer Programming](#) 3 credits
- [COP 1822 - Internet Programming HTML](#) 3 credits
- [COP 2800 - Java Programming](#) 3 credits
- [COP 2823 - Advanced Microsoft Web Development](#) 3 credits or [COP 2830 - Internet Programming HTML II](#) 3 credits
- [CTS 1131 - Computer Hardware](#) 3 credits
- [CTS 1133 - Computer Software](#) 3 credits
- [MAN 2021 - Management Principles](#) 3 credits
- COP 2700 – Database Programming 3 credits

Choose one from the two-course language sequence groupings below:

Visual Basic Sequence – 6 credits

- [COP 1170 - Visual Basic Programming I](#) 3 credits
- [COP 2171 - Visual Basic Programming II](#) 3 credits

OR

C++ Sequence - 6 credits

- [COP 1224 - Programming with C++](#) 3 credits
- [COP 2228 - Advanced Programming with C++](#) 3 credits

OR

C# Sequence - 6 credits

- [COP 2360 - C# Programming I](#) 3 credits
- [COP 2362 - C# Programming II](#) 3 credits
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Electives: (6 CREDITS)

- Any 1000 or 2000 level course 3 credits
- Any 1000 or 2000 level computer course with a COP, CGS, CTS, CNT, CIS, or CAP prefix 3 credits

Total Degree Requirements: 60 Credit Hours

