

**CERTIFICATE****Certificate in Computer Science****Total Credit Hours:** 31-32**About** Certificate in Computer Science

Today, computer skills are highly in demand in the rapidly evolving information technology field. The Certificate in Computer Science prepares students for entry-level positions in technology related areas.

REQUIREMENTS FOR CERTIFICATE

Major Requirements		
Course	Course Name	Credits
MA115	Fundamentals of College Algebra	3
CS101	Introduction to Computer Systems & Information Technology	3
CS104	Visual Basic Programming	3
CS112	Introduction to Linux	3
CS203	Systems Analysis and Design	3
CS205	Network Communications	4
CS206	Java I	3
CS211	JavaScript Programming	3
CS212	Python Programming	3
Electives (Complete 3-4 Credits)		
Course	Course Name	Credits
CSXXX	Any Computer Science course not listed in the Major Requirements	3-4
Certificate Total		31-32

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GENERAL REQUIREMENTS FOR CERTIFICATE

General Requirements for

Certificates

Effective fall Semester 2003, several academic policy changes were implemented to ensure that students are adequately prepared to meet business and industry standards. All Undeclared or newly Declared Students enrolled in regularly scheduled postsecondary courses must be enrolled in or must have completed developmental coursework for Math and English or have successfully placed into post-secondary Math and English (or equivalent).

Students must fulfill the English general education requirement by the time they have enrolled in 12 credits of classes. This means that students may take only nine (9) credits before they must begin meeting the general education requirements. All declared students in Certificate programs will be required to successfully complete minimum general education course requirements. For more information, refer to the Admissions Information, General Education Policy section of this catalog.

A. General Education Requirements

Students must demonstrate proficiency in reading, writing, understanding and speaking English as indicated by one of the following:

- Test out of the English Placement Test (or equivalent), or
- Satisfactory completion of EN097 courses and
- Test out of the Math Placement Test (or equivalent), or
- Satisfactory completion of MA098 course

*Students in the Certificate of Construction Technology program can successfully complete their math requirements with MA094 Mathematics for the Trades in lieu of MA098 Intermediate Algebra.

B. Major Requirements. Total Major Requirements vary by program. Minimum Total Credits Required for a Certificate is 30 credits.

* No course may be counted for both Major and General Education requirements.

** Placement testing is not mandatory for admission to the College. Completion of placement testing or equivalent, however, is required for enrollment into English and mathematics courses. Therefore, students who plan to enroll full-time in a program should take the placement test to be eligible for a full load of courses.

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[Student Learning Outcomes](#)

Upon successful completion of the Certificate in Computer Science program, students will be able to:

1. Demonstrate a solid foundation in the core areas of computer science, as well as knowledge of advanced topics in the field.
2. Apply skillful evaluation to computer-based glitches and draw possible options that best meets the needs of a problem.
3. Design and implement a computer-based solution of a problem by writing codes using an appropriate programming language.

Check out some of these amazing Certificate in Computer Science courses...

CS204 C++ Programming

The purpose of the course is to teach students how to use the C++ programming language. The C++ language concepts and methods to be covered include program development, algorithms, data types, operators, expressions, input/output and files, program control, pointers, functions and macros, variable storage and memory models, arrays, data structures, unions, graphics, and BIOS services. Structured program design will be emphasized. It is not recommended to be the students' first programming course.

[+ More Info](#) [1]

CS104 Visual Basic Programming

This course covers the introductory fundamentals of the Visual Basic programming language. Students will learn object oriented and event-driven programming concepts and develop applications using Visual Basic. Permission from instructor and/or from a computer science advisor is required.

[+ More Info](#) [2]

CS102 Computer Operations

This course features hands-on experience in multiprogramming computer systems with various I/O devices. Operation procedures are given on the data entry stations, workstations, diskette drives, and system printers. Students learn control commands of display and console stations, control command statements, supplied procedures, utility programs, and program products. They are also introduced to the organization of a data processing center and its operations procedures.

[+ More Info](#) [3]

You may also be interested in these related Programs...



[4]

[Cisco Certified Network Professional \(CCNP\) Industry Certification](#) [4]

The courses listed below will prepare the student to take Cisco's CCNP exam. The CCNP certification indicates advanced knowledge of networks. These courses train the student to install, configure, and troubleshoot local and wide area networks for enterprise organizations with networks from 100 to more than 500 nodes. The content emphasizes topics such as security, converged networks, quality of service (QoS), virtual private networks (VPN) and broadband technologies. Coursework must be taken in sequence. After successful completion of the four professional networking courses, a student will be ready to take the Cisco CCNP exam.

[+ More Info](#) [4]



[5]

[Associate of Science in Computer Networking](#) [5]

The Associate of Science in Computer Networking is a program of study that prepares students for entry-level network technicians, computer technicians, and fiber and copper Cable Installers in the field of Information Technology (IT). Technical Requirement classes are designed to give students a firm foundation in the basics of computers, networking, and information systems. Elective courses allow the students to further specialize.

[+ More Info](#) [5]



[6]

[Associate of Science in Computer Science](#) [6]

The Associate of Science in Computer Science program will provide opportunities for students to work as programmers who write instructions and translate them into a machine-readable language, as system analysts who design computer systems for processing information, computer operators who monitor and control computer systems and retrieve results, data entry personnel who enter information and instructions into the computers, etc. The Associate of Science in Computer Science UOG Track will provide the foundational knowledge and hands-on skills to prepare students to further their education at the University of Guam with a goal of earning a Bachelor of Science in Computer Science. Students will learn to design computer systems for processing information; work as programmers who write instructions and translate them into a machine readable language, computer operators who monitor and control computer systems and retrieve results, and data entry personnel who enter information and instructions into the computer.

[+ More Info](#) [6]