DEGREE

Associate of Science in Computer Science - UOG Track

Total Credit Hours: 69-72

About Associate of Science in Computer Science - UOG Track

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.

REQUIREMENTS FOR DEGREE

General Education Requirements		
Course	**Course Name**	**Credits**
English (Choose 1)		
EN110	Freshman Composition	3
EN110A	Freshman Composition with Instructional Lab	4
Course	**Course Name**	**Credits**
MA___	Mathematics Requirement	3-4
CO110	Critical Thinking for Civic Engagement	3
	Social & Behavioral Sciences Requirement	3
CO125	Introduction to Human Communication and Speech	3
SI___	Natural & Physical Sciences Requirement	4
Major Requirements		
Course	**Course Name**	**Credits**
CS101	Introduction to Computer Systems & Information Technology	3
CS104	Visual Basic Programming	3
CS112	Introduction to Linux	3
CS203	Systems Analysis & Design	3

CS204	C ++ Programming	3
CS205	Network Communications	4
CS206	Java I	3
CS211	JavaScript Programming	3
CS212	Python Programming	3
CS213	PHP Programming with MySQL	3
CS299	Computer Science Capstone	4
MA161A	College Algebra & Trigonometry I	3
MA161B	College Algebra & Trigonometry II	3
EN111	Writing for Research	3
OA211	Business Communication	3

Major Requirements (Continued)
Computer Science Elective (Choose 1)

OA210	Database Management Systems	3-4
EE211	IT Essentials	
CS151	Windows Applications	
Program Total		**69-72**

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[GENERAL REQUIREMENTS FOR ASSOCIATE DEGREE](#)

Recognizing the necessity for students to succeed in the complex and rapidly changing workplace, Guam Community College offers a general education curriculum that introduces students to major areas of knowledge and methods of inquiry. All degree programs require an interdisciplinary general education component that promotes the development of intellectual skills that enable students to become effective learners and informed citizens. Critical thinking, the use of language and computation, appropriate social skills, global awareness and respect for diverse opinions are among the learning outcomes provided in the general education requirements of each program.

Guam Community College believes that general education provides the academic foundation necessary for students to achieve their life goals. General education is intended to offer students a breadth of quality student learning experiences, encourage their respect for cultural heritage, promote their ethical and responsible social behavior and facilitate their life-long learning.

The General Education program strives to foster student learning and skill development in civic engagement, critical thinking, understanding of the relationship between the individual and society, information literacy, oral communication, quantitative reasoning, and written communication.

Guam Community College believes that high quality general education opportunities for all citizens are necessary for democratic principles and practices to exist and for a sound economy to flourish. The College continually scrutinizes the general education curriculum in order to assure that all degrees and certificates granted by the College support this vision of general education and that it serves as a means to inspire hope, opportunity and responsibility in all its constituencies.

Requirements for General Education follow the options described below. Students declared prior to fall 2010 will follow the requirements indicated in the applicable catalog in which they first declared their major program at the College.

Notes on General Education requirements

Students are advised to check the requirements for their specific programs before taking General Education courses.
Courses chosen to meet the general education requirements may not be used to meet the Major Requirements of a student's specific degree program.

The list contains courses with pre-requisites, so students should make their choices carefully and thoughtfully. Students may consult a counselor or an academic advisor for guidance in choosing any of the course options listed.

IMPORTANT NOTE: Some programs require different levels of coursework to meet General Education requirements, please review the individual programs for more information.

GENERAL EDUCATION

Scope 1: Skills for and Application of Lifelong Learning

Freshman Composition (Choose one course from the following to meet the required 3-4 credits)

Course #	Course Name	Credits
EN 110	Freshman Composition	3
EN110A	Freshman Composition with Instructional Lab	4
EN 111	Writing for Research	3

Mathematics (Choose one course from the following to meet the required 3-4 credits)*

Course #	Course Name	Credits
MA 110A	Finite Mathematics	3
MA 115	Fundamentals of College Algebra	3
MA 161A	College Algebra & Trigonometry I	3

*Any college level math will be considered for the completion of this category

Literacy for Life Skills (Choose one course from the following to meet the required 3 credits)

Course #	Course Name	Credits
CO 110	Critical Thinking for Civic Engagement	3
CS 151	Windows Applications	
CS 152	Macintosh Applications	

Scope 2: Broad Comprehension of the Development of Knowledge, Practice and Interpretation

Humanities & Fine Arts (Choose one course from the following to meet the required 3-4 credits)*

Course #	Course Name	Credits
ASL 100	American Sign Language I	4
CH 110	Chamorro I	4
ED 265	Culture & Education in Guam	3
CO 125	Introduction to Human Communication and Speech	3
EN 210	Introduction to Literature	3
HI 121	World Civilization (Pre-historic Time to 1500)	3
HI 122	World Civilization (1500 to Present Time)	3
HI 176	Guam History	3
HM 110	Introduction to Community Services	3
HM 201	Social Welfare & Development	3
HU 120	Pacific Cultures	3
HU 220	Guam Cultures & Legends	3
JA 110	Japanese I	4
KE 110	Korean I	4
PI 101	Introduction to Philosophy	3
TH 101	Introduction to the Theater	3
VC 101	Introduction to Visual Communications	3

*Any foreign language, humanities, or fine arts course will be considered for the completion of this category

Natural & Physical Sciences (Choose one course and the corresponding lab from the following to meet the required 4 credits)**

Course #	Course Name	Credits
SI 101/101L	Introduction to Chemistry (3) & Introduction to Chemistry Laboratory (1)	4
SI 103/103L	Introduction to Marine Biology (3) &

	Introduction to Marine Biology Laboratory (1)	
SI 105/105L	Introduction to Physical Geology (3) & Introduction to Physical Geology Laboratory (1)	
SI 110/110L	Environmental Biology (3) & Environmental Biology Laboratory (1)	
SI 141	Applied Physics I	
SI 150/150L	Introduction to Microbiology (3) & Introduction to Microbiology Laboratory (1)	
SI131/131L	Human Anatomy & Physiology I (3) & Human Anatomy & Physiology I Laboratory (1)	
SI132/132L	Human Anatomy & Physiology II (3) & Human Anatomy & Physiology II Laboratory (1)	

**The exception to this would be SI141 which does not include a laboratory requirement

Scope 3: Preparation for and Acceptance of Responsible Participation in Civil Society

Social & Behavioral Sciences (Choose one course from the following to meet the required 3 credits)

Course #	Course Name	Credits
EC 110	Principles of Economics	3
PS140	American Government	3
PY 100	Personal Adjustment	3
PY 120	General Psychology	3
PY 125	Interpersonal Relations	3
SO 130	Introduction to Sociology	3
CJ 100	Introduction to Criminal Justice	3
WG 101	Introduction to Women and Gender Studies	3

*Any social and behavioral science course will be considered for the completion of this category

Minimum General Education Requirements **19**

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SUGGESTED SEQUENCE OF COURSES

This suggested sequence of courses is based on the 2023-2024 College Catalog.

Year 1

Semester 1			Semester 2		
Course	Course Name	Credits	Course	Course Name	Credits
CS101	Introduction to Comp Systems & Info Technology	3	CS205	Network Communications	4
CS211	JavaScript Programming	3	MA161A	College Algebra & Trigonometry	3
CO210	Critical Thinking for Civic Engagement	3	EN111	Writing for Research	3
EN___	English Requirement	3-4	CS213	PHP Programming with MySQL	3
MA___	Finite Mathematics	3-4			
Total		**15-17**	**Total**		**13**

Year 2

Semester 3

Course	Course Name	Credits
MA161B	College Algebra & Trigonometry II	3
CS212	Python Programming	3
CS104	Visual Basic Programming	3
CS204	C ++ Programming	3
	Total	**12**

Semester 4

Course	Course Name	Credits
CS203	Systems Analysis and Design	3
OA211	Business Communications	3
CO125	Introduction to Human Communication & Speech	3
CS206	Java I	3
CS212	Introduction to Linux	3
	Total	**15**

Year 3

Semester 5

Course	Course Name	Credits
CS299	Computer Science Capstone	4
CS___	Computer Science Elective	3-4
	Social &Behavioral Science Requirement	3
SI____	Natural & Physical Science Requirement	4
	Total	**14-15**

Semester 6

Course	Course Name	Credits
	Total	

Program Total		**69-72**

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[Student Learning Outcomes](#)

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

1. Apply concepts and knowledge in the core areas of computer science.
2. Distinguish among basic networking systems, operating systems, and database structures.
3. Write code using programming languages, to include Java, Python, C++, PHP with MySQL and JavaScript.

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

[1]

[Associate of Science in Supervision & Management](#) **[1]**

The Supervision and Management program prepares students for entry-level positions and employment in the field of supervision and management. The program is designed for students who want to learn, update and augment existing knowledge and skills and/or acquire cutting-edge technical and managerial skills; it is also designed for current and future leaders, supervisors, and managers who desire the latest skills to be effective and productive in their respective fields.
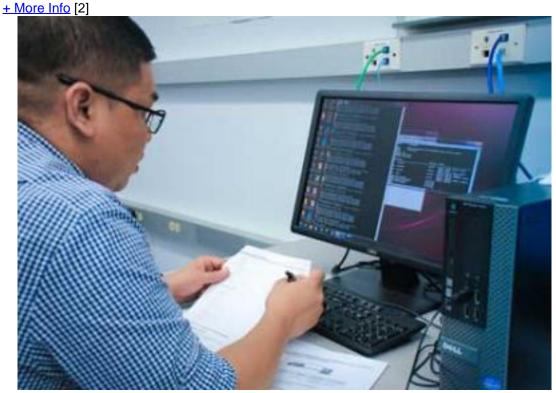
[+ More Info](#) [1]

[2]

[Cisco Certified Network Professional (CCNP) Industry Certification](#) **[2]**

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 [2]

[3]

Associate of Science in Computer Networking **[3]**

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 [3]