

**DEGREE****Associate of Science in Computer Networking****Total Credit Hours:** 62-64**About** Associate of Science in Computer Networking

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. This course of study will provide students with a practical overview of Information Technology, including hands-on experience configuring networking devices, network management, and will enable students to prepare for and attain industry certification through ETA and Cisco Systems.

**REQUIREMENTS FOR DEGREE****General Education Requirements**

<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
EN__	English Requirement	3-4
MA__	Mathematics Requirement	3-4
SI110/SI110L	Environmental Biology (3) & Environmental Biology Laboratory (1)	4
PY125	Interpersonal Relations	3
VC101	Introduction to Visual Communications	3
CS151	Windows Applications	3

**Major Requirements**

<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
EE211	IT Essentials I	4
EE242	Principles of Voice and Data Cabling	2
EE243	Fiber Optics Installation	3
EE283	Network Security +	3
EE265	Computer Networking I	5
EE266	Computer Networking II+	5
EE267	Computer Networking III+	5
EE271	Advanced Computer Networking+	5

EE285	Cybersecurity Operations	5
<b>Computer Networking Electives (Choose 2)</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
EE131	Server	3
CS112	Introduction to Linux	3
EE130	Project Management for IT	3
<b>Program Total</b>		<b>62-64</b>

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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.

<b>GENERAL EDUCATION</b>
<b>Scope 1: Skills for and Application of Lifelong Learning</b>
<b>Freshman Composition (Choose one course from the following to meet the required 3-4 credits)</b>

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
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)\***

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
MA 110A	Finite Mathematics	3
MA 115	Fundamentals of College Algebra	3
MA 161A	College Algebra & Trigonometry I	4

\*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)**

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
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)\***

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
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)\*\***

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
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) &	

SI131/131L	Introduction to Microbiology Laboratory (1)
SI132/132L	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	
<b>Scope 3: Preparation for and Acceptance of Responsible Participation in Civil Society</b>	
<b>Social &amp; Behavioral Sciences (Choose one course from the following to meet the required 3 credits)</b>	
<b>Course #</b>	<b>Course Name Credits</b>
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 3
	Studies
*Any social and behavioral science course will be considered for the completion of this category	
<b>Minimum General Education Requirements</b>	
<b>19</b>	

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### SUGGESTED SEQUENCE OF COURSES

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

<b>Year 1</b>					
<b>Semester 1</b>			<b>Semester 2</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>	<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
EE265	Computer Networking I	5	EE267	Computer Networking III	5
EE266	Computer Networking II	5	EE268	Computer Networking IV	5
MA____	Mathematics Requirement	3-4	SI110/110L	Environmental Biology & Lab	4
EN____	English Requirement	3-4	EE283	Network Security	3
			+		
<b>Total</b>		<b>16-18</b>	<b>Total</b>		<b>17</b>
<b>Year 2</b>					
<b>Semester 3</b>			<b>Semester 4</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>	<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
EE285	Cybersecurity Operations	5	EE242	Principle of Voice and Data	2
VC101	Introduction to Visual Communications	3	EE243	Fiber Optics Installation	3
CS151	Windows Applications	3	EE211	IT Essentials I	4
	Elective - See elective list	3		Elective - See elective list	3
			PY 125	Interpersonal Relations	3
	<b>Total</b>	<b>14</b>	<b>Total</b>		<b>15</b>
<b>Year 1 Total</b>		<b>33</b>	<b>Year 2 Total</b>		<b>29</b>

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[Student Learning Outcomes](#)

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

1. Install, configure, and repair computer networking systems.
2. Pass local and national certification tests in computer repair, telecommunications, and network administration
3. Communicate the values of an effective and productive technician in the telecommunication and computer networking industry.

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



[1]

[Cisco Certified Network Professional \(CCNP\) Industry Certification](#) [1]

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](#) [1]



[2]

[Cisco Certified Network Associate \(CCNA\) Industry Certification](#) [2]

The courses listed below will prepare the student to take Cisco's CCNA exam. These courses prepare the student for configuration of networks using routers, switches and hubs (Local Area Network). Continuing coursework prepares the student to understand Wide Area Networks (WAN). Next, a student focuses on Network Layers, Cisco Internetwork Operating System software user interface, router configuration, startup and setup configuration sources for Cisco IOS software TCP/IP, configuration router interfaces with IP and routing protocols. Other coursework involves LAN design and implementation. Final preparatory coursework includes fundamentals of Wide Area Networks. Coursework must be taken in sequence. After successful completion of the four networking courses, a student will be ready to take the Cisco CCNA exam.

[+ More Info](#) [2]



[3]

### [Associate of Science in Computer Science](#) [3]

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](#) [3]