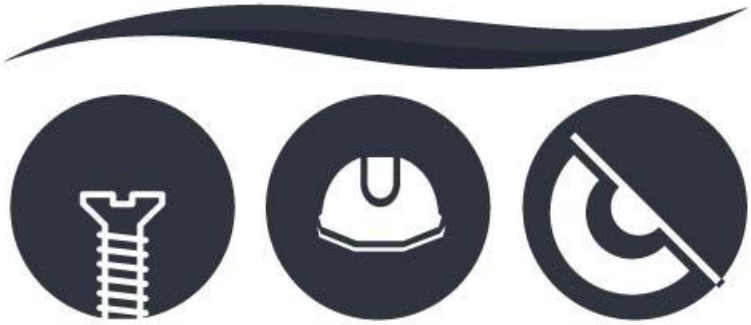

DEGREE

Associate of Science in Civil Engineering Technology

Total Credit Hours: 61-63

About Associate of Science in Civil Engineering Technology

The Associate of Science in Civil Engineering Technology is a course of study that prepares students to analyze construction sites, use and maintain equipment, draft plans, and write reports. Technical requirement classes are designed to provide students with fundamentals in surveying, analyzing material strength, and structural drafting and design. This course of study will provide students with an overview of technical drawing, construction management and procedures, planning, and estimating. The student learning outcomes meet the professional standards of technicians in this field.

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**
MA161A	College Algebra & Trigonometry I	3
CO110	Critical Thinking for Civic Engagement	3
	Humanities & fine Arts	3-4
	Social & Behavioral Science Requirement	3
SI141	Applied Physics	4
Major Requirements		
Course	**Course Name**	**Credits**

AE103	Basic Blueprint Reading	3
AE121	Technical Engineering Drawing I	3
AE122	Technical Engineering Drawing II	3
AE138	Building Codes, Specifications & Construction Management	3
AE150	Comp Aided Design & Draft I	3
AE160	Comp Aided Design & Draft II	3
CE210	Statics	3
CE211	Plane Surveying I	3
CE215	Construction Procedures	3
CE225	Construction Planning & Estimating	3
MA161B	College Algebra & Trigonometry II	3
CT100 **OR**	Introduction to Construction Trades	3 **OR**
SU100	**OR** Survey Drafting	3
EN194	Technical Communication	3
SU250	Introduction to Geographic Information Systems	3
Program Total		**61-63**

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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	4

	(1)
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 2024-2025 College Catalog.

Year 1

Semester 1			Semester 2		
Course	**Course Name**	**Credits**	**Course**	**Course Name**	**Credits**
EN___	English Requirement	3-4	MA161B	College Algebra & Trigonometry II	3
CT100	Introduction to	3 **OR**	SI141	Applied Physics I	4
SU100	Construction Trades Surveying Drafting	3			
CO110	Critical Thinking for Civic Engagement	3	AE121	Technical Engineering Drawing I	3
MA161A	College Algebra & Trigonometry I	3	AE150	Comp Aided Design & Draft I	3

AE103	Basic Blueprint Reading	3	EN194	Technical Communication	3
Total		**15-16**	**Total**		**16**
			Year 2		
	Semester 3			**Semester 4**	
Course	**Course Name**	**Credits**	**Course**	**Course Name**	**Credits**
AE138	Building Codes, Specifications & Construction Management	3	AE122	Technical Engineering Drawing II	3
AE160	Comp Aided Design & Draft II	3	CE225	Construction Planning & Estimating	3
CE210	Statics	3		Humanities & Fine Arts	3-4
CE211	Construction Procedures	3		Social and Behavorial Sciences	3
CE215	Construction Procedures	3			
SU250	Introduction to Geographic Information Systems	3			
Total		**18**	**Total**		**12-13**
Program Total					**61-63**

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Student Learning Outcomes

Upon successful completion of the AS in Civil Engineering Technology program, students will be able to:

1. Properly use surveying equipment and tools and perform applications accordingly.
2. Create a construction drawing set consisting of at least six sheets from a design.
3. Perform basic techniques and skills using modern engineering tools in the current civil engineering industry.
4. Sequence the steps related to the construction process in chronological order.

Check out some of these amazing Associate of Science in Civil Engineering Technology courses...

AE138 Bldg Codes, Specs & Const Mgt

An interpretation and study of local and national building codes and standards, construction documents and office organization. This course will be of value to anyone who plans to enter, or is presently working in the field of construction.
+ More Info [1]

CE221 Strength of Materials

A study of the relationship between the stresses, strains, deformations, and loads applied to structural members.

Axial, torsional, bending and combined stresses are discussed. Stability and the buckling of columns are introduced.
+ More Info [2]

CE211 Plane Surveying I

A beginning course in surveying techniques designed to give the student an understanding of the fundamentals of chaining, leveling, and proper use of the transit. Care and adjustment of instruments and office procedure are also considered. Provision is made by appropriate fieldwork for practical application of the techniques learned.
+ More Info [3]

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

[4]

Certificate in Computer Aided Design & Drafting (CADD) **[4]**

Computer Aided Design and Drafting (CADD) systems are used by drafters to prepare electronic drawings that can be viewed, printed, or programmed directly into automated manufacturing systems.
+ More Info [4]

[5]

Associate of Science in Surveying Technology **[5]**

The Surveying Technology program prepares the student for immediate employment as a surveying or Geographic Information Systems (GIS) technician and teaches the student knowledge and skills that will enable one to adapt to ever evolving technical and technological changes in geospatial field and office applications.
+ More Info [5]

[6]

Associate of Science in Pre-Architectural Drafting **[6]**

The A.S. in Pre-Architectural Drafting covers pre-architecture, building materials and properties, technical drafting, basic computer aided design and drafting (CADD), architectural computer modeling, and an introductory

engineering course.
+ More Info [6]