

DEGREE

Associate of Science in Automotive Service Technology General Service Technician

Total Credit Hours: 60-61

About Associate of Science in Automotive Service Technology General Service Technician

The Associate of Science program in Automotive Service Technology General Service Technician offers students both a comprehensive general education as well as advanced technical training in automotive systems to include: Brakes, Electrical/Electronics, Engine Performance, and Suspension & Steering. In addition, introductory training is provided in Automatic Transmission/Transaxle, Manual Transmission/Transaxle, and Engine Repair.

Students enrolled in the program will receive instruction designed to prepare them to pass the four general service certification examinations administered by the National Institute for Automotive Service Excellence (ASE). Upon passage of examinations and after two years of automotive industry experience, students will receive ASE Certification in Electrical/Electronics, Engine Performance, Brakes, and Suspension and Steering.

REQUIREMENTS FOR DEGREE

General Education Requi	rements		
Course	Course Name	Credits	
EN	English Requirement	3	
MA	Mathematics Requirement	3-4	
SI	Natural & Physical Sciences	4	
	Requirement		
	Social & Behavioral Sciences	3	
	Requirement		
Computer Literacy (Choo	ose 1)		
CS151	Windows Applications	3	
CS152	Macintosh Applications		
Humanities & Fine Arts R	Requirement (Choose 1)		
ASL100	American Sign Language I	4	
JA110	Japanese I		
CH110	CHamoru I		
Major Requirements			
Course	Course Name	Credits	

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AST100	Introduction to Automotive Service	3
AST110	Engine Repair	3
AST120	Automatic Transmission and Transaxle	3
AST130	Manual Drive Train & Axles I	3
AST140	Suspension and Steering	3
AST150	Brake Systems I	3
AST160	Electrical/Electronic Systems	3
AST180A	Engine Performance I	3
AST180B	Engine Performance II	3
AST240	Theory/Practicum: Suspension & Steering	2
AST250	Theory/Practicum: Brakes	2
AST 260	Theory/Practicum: Engine Performance	4
AST 280	Theory/Practicum: Electrical/Electronic	5
Program Total		60-61

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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.

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GENERAL EDUCATION				
Scope 1: Skills for and Application				
Freshman Composition (Choose or		t the required 3-4 credits)		
Course #	Course Name	Credits		
EN 110	Freshman Composition	3		
EN110A	Freshman Composition with	4		
	Instructional Lab			
EN 111	Writing for Research	3		
Mathematics (Choose one course for	rom the following to meet the require	ed 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	4		
*Any college level math will be consident	ered for the completion of this category	/		
Literacy for Life Skills (Choose one	course from the following to meet t	he required 3 credits)		
Course #	Course Name	Credits		
CO 110	Critical Thinking for Civic	3		
	Engagement			
CS 151	Windows Applications			
CS 152	Macintosh Applications			
	the Development of Knowledge, Pra	actice and Interpretation		
	e course from the following to meet			
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	3		
00 120	Communication and Speech			
EN 210	Introduction to Literature	3		
HI 121	World Civilization (Pre-historic Time	3		
111 121	to 1500)	3		
HI 122	World Civilization (1500 to Present	3		
111 122	Time)	3		
HI 176	,	3		
	Guam History	3		
HM 110	Introduction to Community Services			
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	3		
	Communications			
*Any foreign language, humanities, or				
Natural & Physical Sciences (Choos	se one course and the correspondin	g lab from the following to meet		
the required 4 credits)**				
Course #	Course Name	Credits		
SI 101/101L	Introduction to Chemistry (3) &	4		
	Introduction to Chemistry Laboratory			
	(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 SI14	1 which does not include a laboratory r	equirement		
Scope 3: Preparation for and Accep	otance of Responsible Participation	in Civil Society		
Social & Behavioral Sciences (Choo	ose 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 3			
	Studies			
	urse will be considered for the complet	tion of this category		
Minimum General Education Requi	rements			

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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
EN	English	3	AST110	Engine Repair	3
	Requirement				
MA	Mathematics	3-4	AST130	Manual Drive	3
	Requirement			Train & Axles I	
	Social and	3	AST120	Automatic	3
	Behavioral			Transmission &	
	Sciences			Transaxle	
	Requirement				
	Literacy for Life	3	AST140	Suspension and	3
	Requirement			Steering	
AST100	Introduction to	3	AST180A	Engine	3
	Automotive			Performance I	
	Service				

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Total Year 2		15-16		Total	15
Semester 3			Semester 4		
Course	Course Name	Credits	Course	Course Name	Credits
AST150	Brake Systems I	3	AST250	Theory/Practicum : Brakes	2
AST160	Electrical/Electro nic Systems	3	AST280	Theory/Practicum : Engine Performance	5
AST180B	Engine Performance II	3		Humanities & Fine Arts Requirement	4
AST240	Theory/Practicum : Suspension & Steering	2	AST260	Theory/Practicum : Electrical/Electronic	4
SI	Natural and Physical Sciences Requirement	4			
	Total	15		Total	15
Year 1 Total		30-31	Year 2 Total		30
Program Total					60-61

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Student Learning Outcomes

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

- 1. Identify the purpose and proper functioning of the core components of an automotive engine.
- 2. Perform a cylinder compression cranking test.
- 3. Demonstrate the proper use of a digital multimeter (DMM) during diagnosis of electrical circuit problems.

Check out some of these amazing Associate of Science in Automotive Service Technology General Service Technician courses...

AST130 Manual Drive Train & Axles I

This course introduces the student to core principles in manual drive train and axle systems, providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in diagnosing and making repairs to manual drive train and axle systems.

+ More Info [1]

AST120 Automatic Transmission and Transaxle

This course covers all on-car diagnosing, adjusting, replacing, and repairing of both domestic and foreign automatic transmissions, as well as the process of rebuilding complete transmissions/transaxles.

+ More Info [2]

AST180B Engine Performance II

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This second engine performance course involves diagnoses, adjustments, replacement of worn, damaged or inoperative components in the air induction, fuel delivery, electronic engine control and emission control systems. <u>+ More Info</u> [3]





[4]

Hybrid Electric Vehicle Technician [4]

The Light Duty Hybrid Electric Vehicle Technology Industry Certification program prepares students to become National Institute for Automotive Service Excellence (ASE) Certified Light Duty Hybrid Electric Vehicle Specialist by providing technical skills and competencies, based on the standards set by ASE, in hybrid engines, motor/generators, energy management systems, transaxles, power electronics, and hybrid electric vehicle support systems.

+ More Info [4]



[5]

Certificate in Medium/Heavy Truck Diesel Technology [5]

The Medium/Heavy Truck Diesel Technology program prepares graduates to work in the automotive field with special emphasis in diesel service. Graduates will be able to troubleshoot, maintain, and repair various types of diesel engines, trucks, boats, and other heavy equipment. Students will obtain knowledge and skills in Medium/Heavy Truck in a variety of areas to include: diesel engines; drive trains; brake systems; suspension and steering; heating, ventilation, air conditioning; hydraulics; electrical/electronic systems; and preventive maintenance.

+ More Info [5]



[6]

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Associate of Science in Automotive Service Technology Master Service Technician [6]

The Associate of Science program in Automotive Service Technology Master Technician offers students both a comprehensive general education as well as advanced technical training in all automotive systems to include: brakes; electrical/electronic; engine performance; suspension & steering; automatic transmission; manual transmission/transaction; engine repair; manual drive trains; and Heating, Ventilation, and Air Conditioning (HVAC).

+ More Info [6]