



DEGREE

## **Associate of Science in Automotive Service Technology - Master Service Technician Track**

**Total Credit Hours:** 73-74

**About** Associate of Science in Automotive Service Technology - Master Service Technician Track

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).

The primary program objective is to prepare students to pass all eight content area 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 as a Master Automobile Technician.

### REQUIREMENTS FOR DEGREE

<b>General Education Requirements</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
EN__	English Requirement	3
MA__	Mathematics Requirement	3-4
SI__	Natural & Physical Sciences Requirement	4
	Social & Behavioral Sciences Requirement	3
<b>Computer Literacy (Choose 1)</b>		
CS151	Windows Applications	3
CS152	Macintosh Applications	
<b>Humanities &amp; Fine Arts Requirement (Choose 1)</b>		
ASL100	American Sign Language I	4
JA110	Japanese I	
CH110	CHamoru I	
<b>Major Requirements</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>

# Associate of Science in Automotive Service Technology - Master Service Technician Track

Published on GUAM COMMUNITY COLLEGE (<https://guamcc.edu>)

AST100	Introduction to Automotive Service	3
AST110	Engine Repair	3
AST120	Automatic Transmission & Transaxle	3
AST130	Manual Drive Train & Axles I	3
AST140	Suspension and Steering	3
AST150	Brake Systems I	3
AST160	Electrical/Electronic Systems	3
AST170	Heating and Air Conditioning	3
AST180A	Engine Performance I	3
AST180B	Engine Performance II	3
AST210	Theory/Practicum: Engine Repair	3
AST220	Theory/Practicum: Automotive Transmission and Transaxle	3
AST230	Theory/Practicum: Manual Drive Train and Axles	2
AST240	Theory/Practicum: Suspension and Steering	2
AST250	Theory/Practicum: Brakes	2
AST260	Theory/Practicum: Electrical/Electronic Systems	4
AST270	Theory/Practicum: Heating and Air Conditioning	2
AST280	Theory/Practicum: Engine Performance	5
<b>Program Total</b>		<b>73-74</b>

2024-2025 College Catalog

## [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
<b>Mathematics (Choose one course from the following to meet the required 3-4 credits)*</b>		
<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		
<b>Literacy for Life Skills (Choose one course from the following to meet the required 3 credits)</b>		
<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	
<b>Scope 2: Broad Comprehension of the Development of Knowledge, Practice and Interpretation</b>		
<b>Humanities &amp; Fine Arts (Choose one course from the following to meet the required 3-4 credits)*</b>		
<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		
<b>Natural &amp; Physical Sciences (Choose one course and the corresponding lab from the following to meet the required 4 credits)**</b>		
<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) & 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		
<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</b>	<b>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 Studies	3
*Any social and behavioral science course will be considered for the completion of this category		
<b>Minimum General Education Requirements</b>		<b>19</b>

2024-2025 College Catalog

**SUGGESTED SEQUENCE OF COURSES**

This suggested sequence of courses is based on the 2024-2025 College Catalog.

Year 1			Year 2		
Semester 1			Semester 2		
Course	Course Name	Credits	Course	Course Name	Credits
EN110	Freshman Composition	3	AST110	Engine Repair	3
MA110A	Finite Mathematics	3	AST140	Suspension and Steering	3

# Associate of Science in Automotive Service Technology - Master Service Technician Track

Published on GUAM COMMUNITY COLLEGE (<https://guamcc.edu>)

AST100	Introduction to Automotive Service	3	AST130	Manual Drive Train & Axles I	3
SI103/103L	Introduction to Marine Bio (3) & Introduction to Marine Bio Lab (1)	4	AST120	Automatic Transmission & Transaxle	3
<b>Total</b>		<b>13</b>	<b>Total</b>		<b>12</b>
<b>Year 2 Semester 3</b>			<b>Year 2 Semester 4</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>	<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
AST150	Brake Systems I	3	AST180B	Engine Performance II	3
AST160	Electrical/Electronic Systems	3	PY125	Interpersonal Relations	3
AST180A	Engine Performance I	3	CS151	Windows Applications	3
AST170	Heating and Air Conditioning	3	AST210	Theory/Practicum : Engine Repair	3
<b>Total</b>		<b>12</b>	<b>Total</b>		<b>12</b>
<b>Year 3 Semester 5</b>			<b>Year 3 Semester 6</b>		
<b>Course</b>	<b>Course Name</b>	<b>Credits</b>	<b>Course</b>	<b>Course Name</b>	<b>Credits</b>
AST220	Theory/Practicum : Automotive Transmission and Transaxle	3	AST260	Theory/Practicum : Electrical/Electronic Systems	4
AST230	Theory/Practicum : Manual Drive Train and Axles	2	AST280	Theory/Practicum : Engine Performance	5
AST240	Theory/Practicum : Suspension and Steering	2	VC101	Introduction to Visual Communications	3
AST250	Theory/Practicum : Brakes	2			
AST270	Theory/Practicum : Heating and Air Conditioning	2			
<b>Total</b>		<b>11</b>	<b>Total</b>		<b>12</b>
<b>Year 1 Total</b>		<b>25</b>	<b>Year 2 Total</b>		<b>24</b>
<b>Year 3 Total</b>		<b>23</b>			
<b>Program Total</b>					<b>73-74</b>

2024-2025 College Catalog

## [Student Learning Outcomes](#)

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

1. Identify the purposes and proper functioning of the core components of an automotive engine.
2. Test the performance of the heating, ventilation, and air conditioning system and perform corrective action.
3. Demonstrate the proper use of a digital multimeter (DMM) during diagnosis of electrical circuit problems.
4. Service components in the brake, steering, and suspension systems.

## Check out some of these amazing Associate of Science in Automotive Service Technology - Master Service Technician Track courses...

### **AST140 Suspension and Steering**

This course covers wheel alignment and correction, wheels and tires, active and passive suspension systems, steering and steering assist, progressive steering systems, and replacement of worn or damaged parts.

[+ More Info](#) [1]

### **AST170 Heating and Air Conditioning**

This course covers diagnoses, performance checks, repair of air conditioning compressors, replacement of heating and air conditioning components, repairs and/or replacement of liquid cooling system components, and servicing of ventilation systems.

[+ More Info](#) [2]

### **AST180A Engine Performance I**

This course introduces the student to core principles in systems related to the performance of an engine providing them with the foundational knowledge necessary for more advanced study and experiential development of skills in diagnosing and making repairs to engine performance control systems.

[+ More Info](#) [3]

---

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



[4]

[Certificate in Supervision & Management](#) [4]

The Certificate in Supervision and Management program prepares students for entry-level and assistant management positions in supervision and management.

[+ More Info](#) [4]



[5]

#### [Hybrid Electric Vehicle Technician](#) [5]

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](#) [5]



[6]

[Certificate in Medium/Heavy Truck Diesel Technology](#) [6]

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](#) [6]