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# SCHOOL OF TRANSPORTATION Automotive Technology AAS Degree (AT23)

Offered at Clarkesville Campus

Entrance Dates	Fall, Spring, Summer
Length of Program	5 Terms
Credit Hours Required for Graduation	62

**Purpose:** The Automotive Technology Associate of Applied Science degree program prepares students for careers in the automotive service and repair profession. Learning opportunities enable students to develop academic, technical and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment.

# **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED®
- Completion of application process including placement test; or provide SAT or ACT scores

# **Program Requirements:**

 A grade of "C" or better must be achieved in each occupational course in order to complete the program

Program Courses	<u>Credits</u>
General Core Courses	Total 15 credit hours
Area I Language Arts/Communication ENGL 1101 Composition and Rhetoric (required)	3
Area II Social/Behavioral Sciences (one of the following required)	3
ECON 1101 Principles of Economics	
HIST 1111 World History I (to 1500)	
PSYC 1101 Introductory Psychology	
SOCI 1101 Introduction to Sociology	
Area III Natural Sciences/Mathematics (one of the following required)	3
MATH 1101 Mathematical Modeling	
MATH 1103 Quantitative Skills and Reasoning	
MATH 1111 College Algebra	
Area IV Humanities/Fine Arts (one of the following required)	3
ARTS 1101 Arts Appreciation	
ENGL 2130 American Literature	
MUSC 1101 Music Appreciation	
General Education Elective from any area	3
Contact program advisor for program-specific courses and see General Education Requirements for Associate	e Degrees for course options.
Occupational Courses	Total 47 credit hours

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AUTT 1010 Automotive Technology Introduction

AUTT 1020 Automotive Electrical Systems
AUTT 1030 Automotive Brake Systems

NGTC Catalog	/ Stude	ent Handbook	2023 – 2024
		SCHOOL OF TRANSPORTATION	
AUTT	1040	Automotive Engine Performance	7
AUTT	1050	Automotive Suspension and Steering System	4
AUTT	1060	Automotive Climate Control Systems	5
AUTT	2010	Automotive Engine Repair	6
AUTT	2020	Automotive Manual Drive Train and Axles	4
AUTT	2030	Automatic Transmissions and Transaxles	5
COLL	1010	College and Career Success Skills	3

Estimated Cost of books and supplies for full program is approximately \$1,000. This includes textbooks, two uniform shirts (purchased through bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes / boots with oil and slip resistant soles. Snap On Course fee \$225.

The Automotive Technology program is Master accredited, and ASE (Automotive Service Excellence) certified through the National Automotive Technicians Education Foundation, Inc. (NATEF)

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# SCHOOL OF TRANSPORTATION Automotive Technology Diploma (AT14)

Offered at Clarkesville Campus

Entrance Dates	Fall, Spring, Summer
Length of Program	5 Terms
Credit Hours Required for Graduation	53

**Purpose:** The Automotive Technology diploma program prepares students for careers in the automotive service and repair profession. Learning opportunities enable students to develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment. Program graduates receive an Automotive Technology diploma that qualifies them as an entry- level automotive technician.

# **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED<sup>®</sup>
- Completion of application process including placement test; or provide SAT or ACT scores

## **Program Requirements:**

 A grade of "C" or better must be achieved in each occupational course in order to complete the program

<b>Program Cours</b>	<u>es</u>		<u>Credits</u>
Basic Skills Cou	rses		<b>Total 9 credit hours</b>
COLL	1010	College and Career Success Skills	3
ENGL	1010	Fundamentals of English I	3
MATH	1012	Foundations of Mathematics	3
Occupational C	ourses	3	Total 44 credit hours
AUTT	1010	Automotive Technology Introduction	2
AUTT	1020	Automotive Electrical Systems	7
AUTT	1030	Automotive Brake Systems	4
AUTT	1040	Automotive Engine Performance	7
AUTT	1050	Automotive Suspension and Steering Systems	4
AUTT	1060	Automotive Climate Control Systems	5
AUTT	2010	Automotive Engine Repair	6
AUTT	2020	Automotive Manual Drive Train and Axles	4
AUTT	2030	Automotive Automatic Transmissions and Transaxles	5

Estimated cost of books and supplies for full program is approximately \$925. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

The Automotive Technology program is Master accredited ASE (Automotive Service Excellence) certified through the National Automotive Technicians Education Foundation, Inc. (NATEF)

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## **Automotive Chassis Technician Specialist Certificate (ASG1)**

Offered at Clarkesville Campus

Entrance Dates	Vary According to Schedule
Length of Program	2 Terms
Credit Hours Required for Graduation	

**Purpose:** The Automotive Chassis Technician Specialist certificate program provides students with skills needed to enter the automotive industry as an entry-level chassis technician. Topics covered include shop safety, basic electrical/electronic theory and diagnosis, chassis components and types, steering system components and service, alignment theory and procedures, and brake system operation, diagnosis and repair.

## **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED<sup>®</sup>
- Completion of application process including placement test; or provide SAT or ACT scores

## **Program Requirements:**

• A grade of "C" or better must be achieved in each course in order to complete the program

<u>Program Courses</u>		<u>Credits</u>	
AUTT	1010	Automotive Technology Introduction	2
AUTT	1020	Automotive Electrical Systems	7
AUTT	1030	Automotive Brake Systems	4
ΔΙΙΤΤ	1050	Automotive Suspension and Steering Systems	4

Estimated cost of books and supplies for full program is approximately \$350. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

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## **Automotive Climate Control Technician Specialist Certificate (AH21)**

Offered at Clarkesville Campus

Entrance Dates	Vary According to Schedule
Length of Program	2 Terms
Credit Hours Required for Graduation	14

**Purpose:** The Automotive Climate Control Technician certificate program provides students with skills for entering the automotive service industry as an entry-level climate control technician. Topics include basic shop safety, electrical/electronic theory and diagnosis, and the theory, operation, diagnosis and servicing of automotive climate control systems.

# **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED<sup>®</sup>
- Completion of application process including placement test; or provide SAT or ACT scores

## **Program Requirements:**

• A grade of "C" or better must be achieved in each course in order to complete the program

<u>Program Courses</u>			<u>Credits</u>
AUTT	1010	Automotive Technology Introduction	2
AUTT	1020	Automotive Electrical Systems	7
AUTT	1060	Automotive Climate Control Systems	5

Estimated cost of books and supplies for full program is approximately \$500. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

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# Automotive Electrical/Electronic Systems Technician Certificate (AE41)

Offered at Clarkesville Campus

Entrance Dates	Vary According to Schedule
Length of Program	1 Term
Credit Hours Required for Graduation	c

**Purpose:** The Automotive Electrical/Electronic Systems Technician Certificate program provides students with the knowledge and skills necessary to diagnose, service, and repair basic electrical/electronic automotive systems as an entry-level technician. Topics covered: include automotive ship safety, electrical theory and circuit diagnosis, automotive batteries, starting and charging systems, instrumentation, lighting, and various vehicle accessories.

## **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED<sup>®</sup>
- Completion of application process including placement test; or provide SAT or ACT scores

# **Program Requirements:**

• A grade of "C" or better must be achieved in each course in order to complete the program

Program Courses		<u>Credits</u>	
AUTT	1010	Automotive Technology Introduction	2
AUTT	1020	Automotive Electrical Systems	7

Estimated cost of books and supplies for full program is approximately \$350. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

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## **Automotive Engine Performance Technician Certificate (AE51)**

Offered at Clarkesville Campus

Entrance Dates	Vary According to Schedule
Length of Program	2 Terms
Credit Hours Required for Graduation	16

**Purpose:** The Automotive Engine Performance Technician certificate program introduces students to the knowledge and skills they will need as entry-level automotive engine performance technicians. Topics covered include: shop safety, electrical/electronic diagnosis, and diagnosis and service of fuel, ignition, emission and electronic engine controls.

# **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED<sup>®</sup>
- Completion of application process including placement test; or provide SAT or ACT scores

## **Program Requirements:**

• A grade of "C" or better must be achieved in each course in order to complete the program

<b>Program Cours</b>	<u>es</u>		<u>Credits</u>
AUTT	1010	Automotive Technology Introduction	2
AUTT	1020	Automotive Electrical Systems	7
AUTT	1040	Automotive Engine Performance	7

Estimated cost of books and supplies for full program is approximately \$350. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

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## **Automotive Engine Repair Technician Certificate (AE61)**

Offered at Clarkesville Campus

Entrance Dates	Vary According to Schedule
Length of Program	2 Terms
Credit Hours Required for Graduation	15

**Purpose:** The Automotive Engine Repair Technician certificate program provides students with entry-level automotive engine repair skills. Topics include basic shop safety, basic electrical/electronic diagnosis, principles of engine operation, basic engine diagnosis, and basic engine repair procedures.

# **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED®
- Completion of application process including placement test; or provide SAT or ACT scores

## **Program Requirements:**

• A grade of "C" or better must be achieved in each course in order to complete the program

Program Courses			<b>Credits</b>
AUTT	1010	Automotive Technology Introduction	2
AUTT	1020	Automotive Electrical Systems	7
AUTT	2010	Automotive Engine Repair	6

Estimated cost of books and supplies for full program is approximately \$350. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

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## **Automotive Light Duty Diesel Engine Technician Certificate (ALD1)**

Offered at Clarkesville Campus

Entrance Dates	Vary According to Schedule
Length of Program	3 Terms
Credit Hours Required for Graduation	28

**Purpose:** The Automotive Light Duty Diesel Engine Technology certificate program allows auto service students to pursue a short-term training program to learn the basics of maintaining and servicing light duty diesel vehicles and trucks. There will also be an emphasis on electrical/electronic systems diagnosis as well as engine performance and emissions systems.

# **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED<sup>®</sup>
- Completion of application process including placement test; or provide SAT or ACT scores

## **Program Requirements:**

• A grade of "C" or better must be achieved in each course in order to complete the program

<b>Program Cours</b>	es		<u>Credits</u>
AUTT	1010	Automotive Technology Introduction	2
AUTT	1020	Automotive Electrical Systems	7
AUTT	1040	Automotive Engine Performance	7
AUTT	2010	Automotive Engine Repair	6
AUTT	2110	Automotive Light Duty Diesel Engines	6

Estimated cost of books and supplies for full program is approximately \$350. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

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## Automotive Transmission/Transaxle Technician Specialist Certificate (AA71)

Offered at Clarkesville Campus

Entrance Dates	Vary According to Schedule
Length of Program	3 Terms
Credit Hours Required for Graduation	

**Purpose:** The Automotive Transmission/Transaxle Tech Specialist certificate program provides students with the skills to enter the automotive industry as an entry-level transmission, transaxle, and driveline technician. Topics include shop safety, basic electrical/electronic theory and diagnosis, manual transmission/transaxle operation and diagnosis, automatic transmission/transaxle operation and diagnosis, axles operation and diagnosis, differentials operation and diagnosis, and 4WD/AWD systems operation and diagnosis.

# **Admission Requirements:**

- Age 16 or older or student with dual/joint enrollment in high school or GED® students seeking
  access to quality instruction at the postsecondary level
- High school diploma or GED<sup>®</sup>
- Completion of application process including placement test; or provide SAT or ACT scores

## **Program Requirements:**

• A grade of "C" or better must be achieved in each course in order to complete the program

<b>Program Courses</b>		<u>Credits</u>
AUTT 1	010 Automotive Technology Introduction	2
AUTT 1	020 Automotive Electrical Systems	7
AUTT 2	020 Automotive Manual Drive Train and Axles	4
AUTT 2	030 Automotive Automatic Transmissions and Transaxles	5

Estimated cost of books and supplies for full program is approximately \$350. This includes textbooks, two uniform shirts (purchased through the bookstore), safety glasses and three ring binder. This price does NOT include the cost of shoes or pants. Students are required to wear appropriate work style pants or jeans and closed toe shoes/ boots with oil and slip resistant soles. Occupational Lab fee \$20. Snap On Course fee \$225.

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