Academic Plan - Associate of Applied Science Automotive Service Technology

# Catalog Year: 2020/2021

The Associate of Applied Science Degree in Automotive Service Technology and related certificate programs are ASE Student Foundation certified and taught by ASE certified Instructors.

The two-year Automotive A.A.S. and certificate programs train students for employment in the automotive service industry

as professional technicians and prepare students for the ASE (Automotive Service Excellence) certification examinations.

This program includes ASE certification or manufacturer-specific training. Each class in the program requires 5-45 additional

hours of hands-on and/or web-based training (under supervision of the instructor) in addition to scheduled class hours.

Students wishing to pursue the two-year degree or the certificate programs must be signed into courses by the program

director at the beginning of each semester to ensure that they are on track academically to graduate in the prescribed two-

year period. Classes for the corporate tracks will be filled with dealer sponsored students first. General program students

may be allowed to fill any remaining seats. All students, regardless of their chosen track, should be aware of automotive

repair industry expectations, specifically that technicians must drive customers’ vehicles as part of the repair process; thus,

the technician and the student must have a clean motor vehicle record and valid driver’s license. The hiring process at

reputable repair shops and dealerships will include a drug screen and a thorough background investigation.

# Total Credits: 89

# General Education Courses

3 Credits, COM 115 - Public Speaking\* OR COM 125 - Interpersonal Communication, available fall spring summer

3 Credits, ELT 146 - Digital Devices in Computers, available fall spring

3 Credits, ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1\*, available fall spring

summer

4 Credits, MAT 108 - Technical Mathematics or Higher\*, available fall spring summer

4 Credits, PHY 105 - Conceptual Physics with Lab: GT-SC1\*, available fall spring

# Major Courses

1 Credits, ASE 122 - Automotive Electrical Safety Systems, available fall summer

1 Credits, ASE 153 - Automotive Drive Axle Overhaul, available fall spring

1 Credits, ASE 154 - Manual Transmission/Transaxle Diagnosis and Repair, available fall spring

1 Credits, ASE 250 - Automatic Transmission/Transaxle Service, available fall summer

1 Credits, ASE 264 - Introduction Automotive Heating and Air Conditioning, available fall summer

2 Credits, ASE 101 - Auto Shop Orientation, available fall summer

2 Credits, ASE 103 - Auto Maintenance I, available fall summer

2 Credits, ASE 110 - Automotive Brake Service I, available fall spring

2 Credits, ASE 111 - Automotive Brake Service II, available fall spring

2 Credits, ASE 120 - Basic Automotive Electricity, available fall spring

2 Credits, ASE 123 - Starting and Charging System, available fall spring

2 Credits, ASE 130 - General Engine Diagnosis, available fall spring

2 Credits, ASE 134 - Automotive Fuel and Emissions Systems I, available fall spring

2 Credits, ASE 140 - Suspension and Steering I, available fall spring

2 Credits, ASE 141 - Suspension and Steering II, available fall spring

2 Credits, ASE 150 - Manual Drive Train and Axle Maintenance, available fall spring

2 Credits, ASE 151 - Automotive Manual Transmission/Transaxles & Clutches, available fall spring

2 Credits, ASE 160 - Automotive Engine Repair, available fall spring

2 Credits, ASE 162 - Automotive Engine Repair, available fall spring

2 Credits, ASE 170 - Laboratory Experience I, available fall spring

2 Credits, ASE 172 - Laboratory Experience III, available fall spring

2 Credits, ASE 210 - Automotive Power and ABS Brake Systems, available fall spring

2 Credits, ASE 235 - Driveability & Diagnosis, available fall spring

2 Credits, ASE 252 - Advanced Automatic Transmissions/Transaxles, available fall spring

3 Credits, ASE 152 - Manual Transmission, Transaxles and Clutches II, available fall spring

3 Credits, ASE 221 - Automotive and Diesel Body Electrical, available fall spring

3 Credits, ASE 231 - Automotive Computers and Ignition Systems, available fall spring

3 Credits, ASE 233 - Auto Fuel Injection and Emissions Systems II, available fall spring

3 Credits, ASE 240 - Suspension and Steering III, available fall spring

3 Credits, ASE 251 - Automotive Transmission and Transaxle Repair, available fall spring

3 Credits, ASE 265 - Heating and Air Conditioning Systems, available fall spring

4 Credits, ASE 161 - Engine Repair & Rebuild, available fall spring

4 Credits, ASE 171 - Laboratory Experience II, available fall spring

# Pre-Requisites, Co-Requisites, and Recommendations

ASE 111 - Automotive Brake Service II

Pre-Requisite: ASE 110 - Brakes I

ASE 123 - Starting and Charging System

Pre-Requisite: ASE 120 - Basic Automotive Electricity

ASE 134 - Automotive Fuel and Emissions Systems I

Pre-Requisite: ASE 231 - Automotive Computers and Ignition Systems

ASE 141 - Suspension and Steering II

Pre-Requisite: ASE 140 - Suspension and Steering I

ASE 170 - Laboratory Experience I

Pre-Requisite: ASE 120 - Basic Automotive Electricity

ASE 171 - Laboratory Experience II

Pre-Requisite: ASE 120 - Basic Automotive Electricity

ASE 172 - Laboratory Experience III

Pre-Requisite: ASE 120 - Basic Automotive Electricity

ASE 210 - Automotive Power and ABS Brake Systems

Pre-Requisite: ASE 110 - Brakes I

Pre-Requisite: ASE 111 - Automotive Brake Service II

ASE 221 - Automotive and Diesel Body Electrical

Pre-Requisite: ASE 120 - Basic Automotive Electricity

ASE 231 - Automotive Computers and Ignition Systems

Pre-Requisite: ASE 120 - Basic Automotive Electricity

Pre-Requisite: ASE 170 - Laboratory Experience I

ASE 233 - Auto Fuel Injection and Emissions Systems II

Pre-Requisite: ASE 120 - Basic Automotive Electricity

Pre-Requisite: ASE 134 - Automotive Fuel and Emissions Systems I

Pre-Requisite: ASE 231 - Automotive Computers and Ignition Systems

ASE 235 - Driveability & Diagnosis

Pre-Requisite: ASE 120 - Basic Automotive Electricity

ASE 240 - Suspension and Steering III

Pre-Requisite: ASE 140 - Suspension and Steering I

Pre-Requisite: ASE 141 - Suspension and Steering II

ASE 251 - Automotive Transmission and Transaxle Repair

Pre-Requisite: ASE 250 - Automatic Transmission/Transaxle Service

ASE 252 - Advanced Automatic Transmissions/Transaxles

Pre-Requisite: ASE 251 - Automotive Transmission and Transaxle Repair

ASE 265 - Heating and Air Conditioning Systems

Pre-Requisite: ASE 264 - Introduction Automotive Heating and Air Conditioning

ELT 146 - Digital Devices in Computers

Pre-Requisite: ASE 221 - Automotive and Diesel Body Electrical

Pre-Requisite: ELT 106 - Fundamentals of DC/AC OR ASE 120 - Basic Automotive Electricity OR ASE 123 - Starting

ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1\*

Co-Requisite: CCR 094 - Studio 121

# Notes

Course availability is subject to change.

Refer to 20/21 catalog for specific requirements and important information about this degree.

Recommended courses are listed above for certain electives; consult with the Academic Advising Office

(advising@arapahoe.edu or 303.797.5664) or the Automotive Department for additional elective recommendations.

\*This course requires college level readiness as measured by Accuplacer, ACT, or SAT scores; approved high school

course work that is less than five years old; or successful completion of appropriate college-readiness course.

AAA 101 – College 101: Student Experience is required for all new college students seeking degrees or transfer.

# Graduation Requirements

To graduate, students must apply for graduation [here](http://www.arapahoe.edu/departments-and-programs/graduation) by the deadline and meet all degree requirements.

# RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

## Year 1: Summer

2 Credits, ASE 101 - Auto Shop Orientation

2 Credits, ASE 103 - Auto Maintenance I

1 Credits, ASE 122 - Automotive Electrical Safety Systems

1 Credits, ASE 250 - Automatic Transmission/Transaxle Service

1 Credits, ASE 264 - Introduction Automotive Heating and Air Conditioning

## Year 1: Fall

2 Credits, ASE 120 - Basic Automotive Electricity

2 Credits, ASE 123 - Starting and Charging System

2 Credits, ASE 170 - Laboratory Experience I

4 Credits, ASE 171 - Laboratory Experience II

2 Credits, ASE 172 - Laboratory Experience III

3 Credits, ASE 221 - Automotive and Diesel Body Electrical

4 Credits, MAT 108 - Technical Mathematics or Higher

## Year 1: Spring

2 Credits, ASE 110 - Automotive Brake Service I

2 Credits, ASE 111 - Automotive Brake Service II

2 Credits, ASE 140 - Suspension and Steering I

2 Credits, ASE 150 - Manual Drive Train and Axle Maintenance

1 Credits, ASE 153 - Automotive Drive Axle Overhaul

2 Credits, ASE 160 - Automotive Engine Repair

4 Credits, ASE 161 - Engine Repair & Rebuild

2 Credits, ASE 162 - Automotive Engine Repair

4 Credits, PHY 105 - Conceptual Physics with Lab: GT-SC1

## Year 2: Summer

3 Credits, COM 115 - Public Speaking OR COM 125 - Interpersonal Communication

* ~Recommended Communication Course(s)~
	+ COM 125 - Interpersonal Communication

## Year 2: Fall

2 Credits, ASE 130 - General Engine Diagnosis

2 Credits, ASE 134 - Automotive Fuel and Emissions Systems I

3 Credits, ASE 231 - Automotive Computers and Ignition System

3 Credits, ASE 233 - Auto Fuel Injection and Emissions Systems II

2 Credits, ASE 235 - Driveability & Diagnosis

3 Credits, ASE 265 - Heating and Air Conditioning Systems

3 Credits, ELT 146 - Digital Devices in Computers

## Year 2: Spring

2 Credits, ASE 141 - Suspension and Steering II

2 Credits, ASE 151 - Automotive Manual Transmission/Transaxles & Clutches

3 Credits, ASE 152 - Manual Transmission, Transaxles and Clutches II

1 Credits, ASE 154 - Manual Transmission/Transaxle Diagnosis and Repair

2 Credits, ASE 210 - Automotive Power and ABS Brake Systems

3 Credits, ASE 240 - Suspension and Steering III

3 Credits, ASE 251 - Automotive Transmission and Transaxle Repair

2 Credits, ASE 252 - Advanced Automatic Transmissions/Transaxles

3 Credits, ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1

* ~Recommended Course(s)~
	+ ENG 131 - Technical Writing I: GT-CO1\*

# RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

## Year 1: Summer

2 Credits, ASE 101 - Auto Shop Orientation

2 Credits, ASE 103 - Auto Maintenance I

1 Credits, ASE 122 - Automotive Electrical Safety Systems

1 Credits, ASE 250 - Automatic Transmission/Transaxle Service

1 Credits, ASE 264 - Introduction Automotive Heating and Air Conditioning

## Year 1: Fall

2 Credits, ASE 110 - Automotive Brake Service I

2 Credits, ASE 111 - Automotive Brake Service II

2 Credits, ASE 140 - Suspension and Steering I

2 Credits, ASE 150 - Manual Drive Train and Axle Maintenance

1 Credits, ASE 153 - Automotive Drive Axle Overhaul

2 Credits, ASE 160 - Automotive Engine Repair

4 Credits, ASE 161 - Engine Repair & Rebuild

2 Credits, ASE 162 - Automotive Engine Repair

4 Credits, PHY 105 - Conceptual Physics with Lab: GT-SC1

## Year 1: Spring

2 Credits, ASE 120 - Basic Automotive Electricity

2 Credits, ASE 123 - Starting and Charging System

2 Credits, ASE 170 - Laboratory Experience I

4 Credits, ASE 171 - Laboratory Experience II

2 Credits, ASE 172 - Laboratory Experience III

3 Credits, ASE 221 - Automotive and Diesel Body Electrical

4 Credits, MAT 108 - Technical Mathematics or Higher

## Year 2: Summer

3 Credits, COM 115 - Public Speaking OR COM 125 - Interpersonal Communication

* ~Recommended Communication Course(s)~
	+ COM 125 - Interpersonal Communication

## Year 2: Fall

2 Credits, ASE 141 - Suspension and Steering II

2 Credits, ASE 151 - Automotive Manual Transmission/Transaxles & Clutches

3 Credits, ASE 152 - Manual Transmission, Transaxles and Clutches II

1 Credits, ASE 154 - Manual Transmission/Transaxle Diagnosis and Repair

2 Credits, ASE 210 - Automotive Power and ABS Brake Systems

3 Credits, ASE 240 - Suspension and Steering III

3 Credits, ASE 251 - Automotive Transmission and Transaxle Repair

2 Credits, ASE 252 - Advanced Automatic Transmissions/Transaxles

## Year 2: Spring

2 Credits, ASE 130 - General Engine Diagnosis

2 Credits, ASE 134 - Automotive Fuel and Emissions Systems I

3 Credits, ASE 231 - Automotive Computers and Ignition System

3 Credits, ASE 233 - Auto Fuel Injection and Emissions Systems II

2 Credits, ASE 235 - Driveability & Diagnosis

3 Credits, ASE 265 - Heating and Air Conditioning Systems

3 Credits, ELT 146 - Digital Devices in Computers

3 Credits, ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1

* ~Recommended Course(s)~
	+ ENG 131 - Technical Writing I: GT-CO1\*