

# ADVANCED AUTOMOTIVE SERVICE TECHNICIAN, TRANSPORTATION SERVICES (AAS)

Degree: Associate of Applied Science  
Major: Transportation Services  
Emphasis: Advanced Automotive Service Technician  
Program Code: 1386

## About This Major . . .

In the Associate of Applied Science degree with a major in Transportation Services, and emphasis in Advanced Automotive Service Technician, students learn the fundamentals of electronics, starters, ignition, and charging systems, air conditioning, cooling and heating systems, safety, technical math, use of technical manuals, basic management skills, written and oral communication skills, and leadership. Advanced coursework includes an in-depth study of internal combustion engine disassembly, repair, reassembly, diagnosis and troubleshooting, suspension systems, and alignment and wheel balance. The Advanced Automotive Service Technician emphasis prepares students for careers as automotive technicians, parts and service distributors, industrial sales representatives, service managers, and business owners in the transportation services industry.

For more information on what you can do with this major, visit WCCC's Programs of Study (<https://www.coloradomesa.edu/wccc/programs/>) page.

All CMU/WCCC associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply principles of grammar and vocabulary in the documentation required to perform the duties of a repair technician to properly repair vehicles. (Communication Fluency)
2. Apply Mathematical concepts and practices that are required to properly perform vehicle repair competencies to an (ASE) Automotive Service Excellence standard. (Quantitative Fluency)
3. Evaluate evidence discovered during the diagnosis and troubleshooting of vehicles and apply those findings to strategies to properly repair the vehicle. (Critical Thinking)
4. Describe the scope and application of principle features of the field of study, including core practices in the vehicle repair industry. (Specialized Knowledge)
5. Demonstrate mastery of the current terminology in the Transportation Service industry and generate substantially error-free products or processes that define the duties of a repair technician. (Specialized Knowledge)
6. Perform vehicle repair practices that meet or exceed industry standards as defined by (ASE) Automotive Service Excellence. (Applied Learning)
7. Demonstrate personal and professional ethical behavior as applied to the industry. (Applied Learning)

8. Define the legal and ethical standards required of the vehicle repair industry. (Specialized Knowledge)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select 'Print Options.'** This will give you the options to either 'Send Page to Printer' or 'Download PDF of This Page.' The 'Download PDF of This Page' option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

## Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and WCCC Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/WCCC.
- 2.00 cumulative GPA or higher in all CMU/WCCC coursework.
- A course may only be used to fulfill one requirement for each degree/certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

## Specific to this program:

- 70 semester hours total for the AAS, Transportation Services - Advanced Automotive Service Technician.

## Essential Learning Requirements

(15 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

Code	Title	Semester Credit Hours
<b>Communication</b>		
ENGL 111	English Composition I-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
<b>Mathematics</b>		
MATH 107	Career Math (or higher)	3
<b>Other Essential Learning Core Courses</b>		
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Total Semester Credit Hours		15

## Other Lower Division Requirements

Code	Title	Semester Credit Hours
<b>Wellness Requirement</b>		
KINE 100	Health and Wellness	1
KINA 1XX	Activity Course	1
Total Semester Credit Hours		2

## Program Specific Degree Requirements

(53 semester hours, must earn a "C" or better in each course.)

- Additional expenses - Students entering the program may be required to purchase or have hand tools and appropriate clothing and safety gear with a total cost of approximately \$2500.00. This does not include cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
<b>Required Courses</b>		
TSTC 100	Introduction to Transportation Services	2
TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTC 170	Chassis Fundamentals	2
TSTC 171	Brakes I	2
TSTG 120	Industrial Safety Practices	2
TSTG 135	Starting and Charging Systems	2
TSTG 175	Brakes II	2
TSTG 195	Climate Control	4
TSTG 220	Workplace Skills	3
TSTG 275	ABS Diagnostics	2
TSTA 245	Manual Drive Trains	4

or TSTA 247	Automatic Drive Train Service	
TSTA 265	Engine Control Services	3
TSTA 267	Body Controls	3
TSTA 275	Alignment and Suspension Service	3
TSTA 287	Engine Performance and Emissions	3
CADT 101	Introduction to Computers	1
Total Semester Credit Hours		45

Code	Title	Semester Credit Hours
<b>Restricted Electives</b>		
Select a minimum of 8 semester hours of the following:		8
TSTA 286	Hybrid and Alternative Fueled Vehicles	
TSTA 289	Alternative Fueled Vehicles	
TSTD 215	Diesel Engine Reconditioning	
TSTD 265	Diesel Engine Controls	
TSTG 115	Gas Engine Reconditioning	
TSTG 240	Job Shop	
TSTG 270	Practical Applications	
Total Semester Credit Hours		8

## Suggested Course Plan

First Year	Semester Credit Hours	
<b>Fall Semester</b>		
TSTC 100	Introduction to Transportation Services	2
TSTC 171	Brakes I	2
TSTG 175	Brakes II	2
TSTC 170	Chassis Fundamentals	2
TSTG 120	Industrial Safety Practices	2
MATH 107	Career Math (or higher)	3
KINA 1XX	Activity Course	1
KINE 100	Health and Wellness	1
ENGL 111	English Composition I-GTC01	3
Semester Credit Hours		18
<b>Spring Semester</b>		
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTG 135	Starting and Charging Systems	2
TSTC 101	Vehicle Service and Inspection	3
CADT 101	Introduction to Computers	1
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Semester Credit Hours		16
<b>Second Year</b>		
<b>Fall Semester</b>		
Select one of the following:		3
ENGL 112	English Composition II-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
TSTA 245	Manual Drive Trains	4
or TSTA 247	or Automatic Drive Train Service	
TSTG 275	ABS Diagnostics	2
TSTA 265	Engine Control Services	3
TSTA 275	Alignment and Suspension Service	3

TSTG 220	Workplace Skills	3
	Semester Credit Hours	18
<b>Spring Semester</b>		
TSTA 267	Body Controls	3
TSTA 287	Engine Performance and Emissions	3
TSTG 195	Climate Control	4
TSTA/D/G - Restricted Electives		8
	Semester Credit Hours	18
	Total Semester Credit Hours	70

## Advising and Graduation

### Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

### Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.