



## 2017-2018 PROGRAM REQUIREMENTS

**Degree: Associate of Applied Science**

**Major: Transportation Services**

**Emphasis: Advanced Automotive Service Technician**

### **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, go to <http://www.coloradomesa.edu/wccc/programs.html>

All CMU associate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. 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 finding 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)

### **Advising Process and DegreeWorks**

This document 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.

## **INSTITUTIONAL DEGREE REQUIREMENTS**

The following institutional degree requirements apply to all CMU/WCCC 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.

## **PROGRAM-SPECIFIC DEGREE REQUIREMENTS**

- 70 semester hours total for the AAS, Transportation Services - Advanced Automotive Service Technician.
- A minimum of 16 hours taken at CMU in no fewer than two semesters.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A "C" or better must be achieved in coursework toward major content area.

## **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.

### **Communication** (6 semester hours)

- ENGL 111 - English Composition (3)
- Select one of the following courses:
  - ENGL 112 - English Composition (3)
  - SPCH 101 - Interpersonal Communication (3)
  - SPCH 102 - Speechmaking (3)

### **Mathematics** (3 semester hours)

- MATH 107 - Career Math (3) or higher

### **Other Essential Learning Core Courses** (6 semester hours)

- 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)

## **OTHER LOWER-DIVISION REQUIREMENTS**

### **Wellness Requirement** (2 semester hours)

- KINE 100 - Health and Wellness (1)
- Select one Activity course (1)

**AAS: TRANSPORTATION SERVICES - ADVANCED AUTOMOTIVE SERVICE TECHNICIAN** (53 semester hours)

**Required Courses** (45 semester hours)

- TSTC 100 - Intro to Transportation Service (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)
- One of the following:
  - TSTA 245 - Manual Drive Trains (4)
  - TSTA 247 - Automatic Drive Trains (4)
- TSTA 265 - Engine Control Service (3)
- TSTA 267 - Body Controls (3)
- TSTA 275 - Alignment & Suspension Service (3)
- TSTA 287 - Engine Performance and Emissions (3)
- CADT 101 - Intro to Computers (1)

**Restricted Electives** (8 semester hours)

Choose a minimum of 8 semester hours from the list below.

- TSTD 265 - Diesel Engine Controls (3)
- TSTA 289 - Alternative Fueled Vehicles (2)
- TSTG 240 - Job Shop (4)
- TSTA 286 - Hybrid Fueled Vehicles (2)
- TSTG 270 - Practical Applications (4)
- TSTG 115 - Engine Reconditioning (4)
- TSTD 215 - Diesel Engine Reconditioning (5)

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**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.

## SUGGESTED COURSE SEQUENCING

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### **Freshman Year, Fall Semester: 18 credits**

- TSTC 100 - Intro to Transportation Service (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 (3) or higher
- KINE 100 - Health and Wellness (1)
- KINA Activity course (1)
- ENGL 111 - English Composition (3)

### **Freshman Year, Spring Semester: 16 credits**

- 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 - Intro 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)

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### **Sophomore Year, Fall Semester: 18 credits**

- ENGL 112 - English Composition (3) or SPCH 101 - Interpersonal Communication (3) or SPCH 102 - Speechmaking (3)
- TSTA 245 - Manual Drive Trains (4) or TSTA 247 - Automatic Drive Trains (4)
- TSTG 275 - ABS/Diagnostics (2)
- TSTA 265 - Engine Control Service (3)
- TSTA 275 - Alignment & Suspension Service (3)
- TSTG 220 - Workplace Skills (3)

### **Sophomore Year, Spring Semester: 18 credits**

- TSTA 267 - Body Controls (3)
  - TSTA 287 - Engine Performance and Emissions (3)
  - TSTG 195 - Climate Control (4)
  - TSTA/D/G - Restricted Electives (8)
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