

DIESEL TECHNOLOGY, TRANSPORTATION SERVICES (AAS)

Degree: Associate of Applied Science

Major: Transportation Services

Emphasis: Diesel Technology

Program Code: 1342

About This Major . . .

In the Associate of Applied Science degree with a major in Transportation Services and emphasis in Diesel Technology, 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 diesel technology emphasis concentrates on on-road trucks and light duty diesel-powered vehicles. Students will be prepared for careers as diesel 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)

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:

- 62 semester hours total for the AAS, Transportation Services - Diesel Technology.

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
Communication		
ENGL 111	English Composition-GTC01	3
Select one of the following courses:		3
ENGL 112	English Composition-GTC02	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
Mathematics		
MATH 107	Career Math (or higher)	3
Other Essential Learning Core Courses		
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
Wellness Requirement		
KINE 100	Health and Wellness	1
Select one Activity course		1
Total Semester Credit Hours		2

Program Specific Degree Requirements

(45 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
Required Courses		
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 175	Brakes II	2
TSTG 195	Climate Control	4
TSTG 120	Industrial Safety Practices	2
TSTG 150	Fluid Power	3
TSTG 220	Workplace Skills	3
TSTG 135	Starting and Charging Systems	2
Total Semester Credit Hours		29

Code	Title	Semester Credit Hours
Restricted Electives		
Select 16 semester hours of the following:		16
TSTA 245	Manual Drive Trains	
TSTA 267	Body Controls	
TSTA 275	Alignment and Suspension Service	
TSTA 287	Engine Performance and Emissions	
TSTA 289	Alternative Fueled Vehicles	
TSTD 177	Air Systems Repair and Service	
TSTD 215	Diesel Engine Reconditioning	
TSTD 265	Diesel Engine Controls	

TSTD 275	Heavy Duty Suspension
TSTG 115	Gas Engine Reconditioning
TSTG 240	Job Shop
TSTG 270	Practical Applications
WELD 151	Introduction to Welding

Total Semester Credit Hours 16

Course	Title	Semester Credit Hours
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First Year

Fall Semester

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
TSTA/G/D - Restricted Electives		3
Semester Credit Hours		16

Spring Semester

TSTC 101	Vehicle Service and Inspection	3
TSTC 130	Electrical I	2
TSTC 160	Electrical II	2
TSTG 195	Climate Control	4
TSTG 150	Fluid Power	3
ENGL 111	English Composition-GTCO1	3
Semester Credit Hours		17

Second Year

Fall Semester

Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Select one of the following:		3
ENGL 112	English Composition-GTCO2	
SPCH 101	Interpersonal Communications	
SPCH 102	Speechmaking	
KINE 100	Health and Wellness	1
TSTG 135	Starting and Charging Systems	2
TSTG 220	Workplace Skills	3
TSTA/G/D - Restricted Electives		3
Semester Credit Hours		15

Spring Semester

TSTA/G/D - Restricted Electives		10
KINA 1xx	Activity	1
Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course		3
Semester Credit Hours		14
Total Semester Credit Hours		62

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.