



**2016-2017 PETITION/PROGRAM SHEET**  
**Award: Technical Certificate**  
**Program of Study: Transportation Services**  
**Specialization: Diesel Mechanics**

**About This Certificate . . .**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 mechanics specialization concentrates on on-road trucks and light duty diesel-powered vehicles. Career options include automotive/diesel technician, parts and service distributor, industrial sales representative, and service manager.

For more information on what you can do with this major, go to <http://www.coloradomesa.edu/wccc/programs.html>

All CMU certificate 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)

**NAME:** \_\_\_\_\_ **STUDENT ID #:** \_\_\_\_\_

**LOCAL ADDRESS AND PHONE NUMBER:** \_\_\_\_\_  
 \_\_\_\_\_ ( ) \_\_\_\_\_

I, (Signature) \_\_\_\_\_, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I have read and understand the policies listed on the last page of this program sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

\_\_\_\_\_  
Signature of Advisor \_\_\_\_\_ 20\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Department Head \_\_\_\_\_ 20\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Registrar \_\_\_\_\_ 20\_\_\_\_\_  
Date

Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration.

**DEGREE REQUIREMENTS:**

- 2.00 cumulative GPA or higher in all CMU coursework
- “C” or better in each course which comprises the area of emphasis or specialization.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- A student must follow the CMU graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student’s responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student’s faculty advisor and Department Head.
- 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 \$2,500.00 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.
- Please see faculty advisor for approved electives.
- See the “Requirements for Undergraduate Degrees and Certificates” in the catalog for additional graduation information

**Technical Certificate: Transportation Services – Diesel Mechanics**  
 (32 Semester Hours) See the current catalog for a list of courses that fulfill the requirements below.

Course No	Title	Sem.hrs	Grade	Term/Trns
TSTC 100	Intro to Transportation Services	2	_____	_____
TSTC 101	Vehicle Service & 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 Service	4	_____	_____
MATH 107	Career Mathematics	3	_____	_____
TSTG 120	Industry Safety Practices	2	_____	_____
TSTG 150	Fluid Power	3	_____	_____

Course No	Title	Sem.hrs	Grade	Term/Trns
-----------	-------	---------	-------	-----------

**Restricted Electives. Choose 5 semester hours from list below.**  
 (Please see advisor when selecting electives).

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**Choose 5 semester hours from:**

- TSTA 265 Engine Control Services (2)
- TSTA 267 Body and Chassis Controls (2)
- TSTD 177 Air Systems Repair and Service (2)
- TSTD 215 Diesel Engine Reconditioning (5)
- TSTD 265 Diesel Engine Controls (3)
- TSTD 275 Heavy Duty Suspension (2)
- TSTG 240 Job Shop (4)
- TSTG 135 Charging and Starting Systems (2)
- TSTG 270 Practical Applications (4)
- TSTG 220 Workplace Skills (3)
- WELD 151 Introduction to Welding (3)

**SUGGESTED COURSE SEQUENCING FOR THE TECHNICAL CERTIFICATE  
WITH A PROGRAM OF STUDY IN TRANSPORTATION SERVICES,  
SPECIALIZATION IN DIESEL MECHANICS**

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered during the Fall or Spring semesters. It is the student's responsibility to meet with the assigned advisor and check the 2 year course matrix on the Colorado Mesa website for course availability.

<b>First Semester</b>			<b>Second Semester</b>		
		<b>Hours</b>			<b>Hours</b>
TSTC 100	Introduction to Transportation Services	2	TSTC 101	Vehicle Service and Inspection	3
TSTC 170	Chassis Fundamentals	2	TSTC 130	Electrical Fundamentals	2
TSTC 171	Brakes I	2	TSTC 160	Electronic Control Fundamentals	2
TSTG 175	Brakes II	2	TSTG 150	Fluid Power	3
TSTG 120	Industry Safety Practices	2	TSTG 195	Climate Control Service	4
Electives		3	TSTAG/D	Electives	<u>2</u>
MATH 107	Career Mathematics	<u>3</u>			16
		16			

**POLICIES:**

1. Please see the catalog for a complete list of graduation requirements.
2. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.** You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.**
3. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature. Finally, the Department Head will submit the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
4. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
5. NOTE: The semester before graduation, you may be required to take a Major Field Achievement Test (exit exam).
6. NOTE: Students should consult the Financial Aid Office for eligibility requirements for undergraduate and graduate certificates