

2015-2016 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) on the Program Sheet. I have read and understand the policie those courses is the final course grade received except for the semester. I have indicated the semester in which I will comp	es listed on the last page of this program sheet. I further cer e courses in which I am currently enrolled and the courses	rtify that the grade listed for					
		20					
Signature of Advisor	Date						
		20					
Signature of Department Head	Date						
		20					
Signature of Registrar	Date						

Technical Certificate: Transportation Services – Diesel Mechanics

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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 "Undergraduate Graduation Requirements" in the catalog for additional graduation information

Technical Ce	rtificate: Transportation S	ervices – I	Diesel M	<u>Iechanics</u>	Course No	Title	Sem.hrs	Grade	Term/Trn
(36 Semester	Hours) See the current catalog	g for a list	of cours	ses that					
fulfill the requ	irements below.	-			TSTC 190	Climate Control Fundamenta	ls 1		
•					MATH 107	Career Mathematics	3		
Course No	Title	Sem.hrs	Grade	Term/Trns	TSTG 120	Industry Safety Practices	3		
					TSTG 150	Fluid Power	3		
TSTC 100	Intro to Transportation Serv	ices 1							
TSTC 101	Vehicle Service & Inspectio	n 2							
TSTC 110	Engine Fundamentals	1			Restricted Ele	ectives, Choose 13semester hou	urs from l	ist below	v. (Please
TSTC 130	Electrical Fundamentals	2			see advisor w	hen selecting electives).			_ `
TSTC 140	Drive Train Fundamentals	1				,			
TSTC 160	Electrical Control Fundamen	ntals2							
TSTC 170	Chassis Fundamentals	1							
TSTC 171	Brake System Fundamentals	3 2							
TSTC 180	Fuel System Fundamentals	1							
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Choose 13 semester hours from:

TSTA 245 Manual Drive Trains (4)

TSTA 265 Engine Control Services (2)

TSTA 267 Body and Chassis Controls (2)

TSTA 287 Engine Performance and Emissions 2)

TSTG 135 Electrical Component Repair (2)

TSTA 289 Alternative Fueled Vehicles (2)

TSTG 140 Job Shop (4)

TSTD 177Air Systems Repair and Service (2)

TSTG 170 Practical Application (4)

WELD 151 Introduction to Welding (3)

TSTD 215 Diesel Engine Reconditioning (5)

TSTG 175 Hydraulic Brake Service (2)

TSTD 265 Diesel Engine Controls (3)

TSTG 195 Climate Control Service (2)

TSTD 275 Heavy Duty Suspension (2)

TSTG 240 Advanced Job Shop (4)

TSTD 285 Diesel Fuel Injection (2)

TSTG 270 Advanced Practical Applications (4)

TSTG 220 Industry Employment Practices (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.

First Semester		Hours	Second Semes	ster	Hours
TSTC 100	Introduction to Transportation Service	s 1	TSTC 140	Drive Train Fundamentals	1
TSTC 101	Vehicle Service and Inspection	2	TSTC 171	Brake System Fundamentals	2
TSTC 110	Engine Fundamentals	1	TSTC 190	Climate Control Fundamentals	1
TSTC 130	Electrical Fundamentals	2	TSTC 180	Fuel System Fundamentals	1
TSTC 160	Electronic Control Fundamentals	2	TSTG 150	Fluid Power	3
TSTC 170	Chassis Fundamentals	1	TSTAG/D	Electives	<u>10</u>
TSTG 120	Industry Safety Practices	3			18
Electives		3			
MATH 107	Career Mathematics	3			
		18			

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

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