

# DIESEL TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE

The advent of computer-controlled machines in industry provides the City College at MSU Billings Diesel program with the challenge and opportunity to instruct students in the latest technologies available. Cooperation from industry has given this training program the advantage of having new and/or used equipment to study, adjust settings, scan readings and repair.

The program is certified in both ASE and NATEF. Current diesel employers include major truck, tractor, and auto dealerships; specialty shops; and independent garages.

Diesel Technology graduates are in demand by heavy-duty construction, mining, logging, and agricultural businesses. See our website at [www.msubillings.edu/careers/](http://www.msubillings.edu/careers/) for graduate data. Articulation agreements with MSU-Northern, MSU Billings, and the Billings Career Center provide additional education for qualifying students.

Associate of Applied Science degrees are awarded to students who successfully pass the required courses.

## Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Inspect, diagnose, and repair diesel engines
- Inspect, diagnose, and repair heavy duty drive train
- Inspect, diagnose, and repair heavy duty brakes
- Inspect, diagnose, and repair heavy duty suspension and steering
- Inspect, diagnose, and repair electrical and electronic systems
- Inspect, diagnose, and repair heating, ventilation and air conditioning systems
- Perform basic preventive vehicle maintenance
- Inspect, diagnose, and repair hydraulic/hydrostatic/pneumatic systems
- Demonstrate appropriate work place communication skills
- Maintain a safe working environment

## Required Courses

Code	Title	Credits
CAPP 120	Introduction to Computers	3
COMX 106	Comm in a Dynamic Workplace	3
DST 101	Power Trains	2
DST 117	Intro to Diesel Fuel Systems	4
DST 132	Diesel Engine Overhaul	6
DST 140	Intro to Hydraulics	2
DST 141	Intro to Hydraulics Lab	2
DST 155	Adv Hydraulics & Pneumatics	4
DST 202	Advanced Power Trains	2
DST 250	Heavy Duty Chassis	6
DST 256	Applied Diesel Service Oper I	2
or DST 298	Internship/Cooperative Educ	
DST 257	Applied Diesel Service Oper II	2
or DST 298	Internship/Cooperative Educ	
DST 260	Diesel Eng Diag & Troubleshoot	5
DST 277	Adv Fuel Systems & Diesel Eng	6
M 114	Extended Technical Mathematics	3

TRID 150	Environ/Shop Practices	2
TRID 151	Welding	2
TRID 152	Vehicle Htg, Vent & AC	3
TRID 170	Engine Theory	4
TRID 181	Transport Elect Systems Lec	2
TRID 182	Transport Elect Systems Lab	2
WRIT 122	Intro to Business Writing	3
or WRIT 121	Intro to Technical Writing	
<b>Total Minimum Credits</b>		<b>70</b>

*Students should check the course descriptions for required prerequisites. Math and English requirements are usually determined by performance on placement tests or transfer credits.*

## Suggested Plan of Study

Code	Title	Credits
<b>First Semester</b>		
COMX 106	Comm in a Dynamic Workplace	3
DST 140	Intro to Hydraulics	2
DST 141	Intro to Hydraulics Lab	2
TRID 150	Environ/Shop Practices	2
TRID 170	Engine Theory	4
TRID 181	Transport Elect Systems Lec	2
TRID 182	Transport Elect Systems Lab	2
<b>Total</b>		<b>17</b>
<b>Second Semester</b>		
DST 117	Intro to Diesel Fuel Systems	4
DST 250	Heavy Duty Chassis	6
DST 101	Power Trains	2
WRIT 121	Intro to Technical Writing	3
or WRIT 122	Intro to Business Writing	
M 114	Extended Technical Mathematics	3
<b>Total</b>		<b>18</b>
<b>Third Semester</b>		
CAPP 120	Introduction to Computers	3
DST 202	Advanced Power Trains	2
DST 132	Diesel Engine Overhaul	6
DST 260	Diesel Eng Diag & Troubleshoot	5
DST 256	Applied Diesel Service Oper I	2
or DST 298	Internship/Cooperative Educ	
<b>Total</b>		<b>18</b>
<b>Fourth Semester</b>		
DST 257	Applied Diesel Service Oper II	2
or DST 298	Internship/Cooperative Educ	
DST 277	Adv Fuel Systems & Diesel Eng	6
DST 155	Adv Hydraulics & Pneumatics	4
TRID 151	Welding	2
TRID 152	Vehicle Htg, Vent & AC	3
<b>Total</b>		<b>17</b>