

## Program Description

The Diesel Equipment Technician Diploma is an eleven-month program that includes an accelerated six-week summer session. The Diesel Technician Associate of Applied Science (A.A.S.) Degree consists of all coursework from the diploma program, plus commercial driver’s license training and internship experience, and an additional 15 credits of General Education courses from at least three of the 10 goal areas of the Minnesota Transfer Curriculum (MnTC). This program concentrates on the hydraulic/hydrostatic, power train, electrical/electronics, and engine systems of off-road construction equipment such as crawlers, excavators, backhoes, front end loaders, motor graders, and skid steer loaders.

## Program Outcomes

By completing this program, students will achieve the following learning outcomes:

- Apply safe shop and equipment practices;
- Demonstrate proper use and care of shop and personal tools;
- Inspect, diagnose, and conduct failure analysis and perform preventative maintenance inspections in electrical, hydraulic, engines and power train systems;
- Use service resources and software technologies;
- Apply fundamental skills and concepts to problem solving situations;
- Communicate effectively in diesel mechanics industry situations;
- Demonstrate a high level of craftsmanship and professionalism.

## Program Admissions Requirements

Students enrolled in this program must supply their own basic tool sets. A guideline of what tools are needed is available from admissions. A pre-enrollment drug test is required of all students. Enrolled students will remain in a random drug testing consortium.

## Career Opportunities

The Diesel Equipment Technician program allows students to prepare for careers in maintenance, repair, and diagnostics of diesel equipment. Graduates students find employment at original equipment manufacturing dealerships, construction contractors, independent repair facilities, federal, state and local government agencies, and the related forestry, mining, and petroleum industries. Career titles may include: Diesel and Heavy Equipment Technician, Diesel Maintenance Technician, Heavy Equipment Technician, Heavy Truck Technician, Diesel Technician, Diesel Mechanic.

## Program Course Requirements

DHET 1103	Introduction to Construction Equipment <b>OR</b>	
HEOM 1200	Introduction to Operations .....	1 cr
DHET 1107	Electrical Theory .....	3 cr
DHET 1108	Electrical Lab .....	5 cr
DHET 1117	Engine Theory .....	3 cr
DHET 1118	Engine Lab .....	5 cr
DHET 1123	Customer Service/Service Management 1 .....	1 cr
DHET 1125	Hydraulic Theory .....	3 cr
DHET 1126	Hydraulic Lab.....	5 cr
DHET 1128	Power Trains Theory .....	2 cr
DHET 1129	Power Trains Lab .....	5 cr
DHET 1132*	On Highway Vehicle Systems Theory .....	3 cr
DHET 1133*	On Highway Vehicle Systems Lab.....	4 cr
DHET 1130	Diesel Internship .....	2 cr
DHET 1135	Welding for Diesel Equipment .....	1 cr
ENGL 1520	Language Fundamentals .....	1 cr
ENGL 1521	Technical Writing Fundamentals.....	1 cr
ENGL 1522	Writing Fundamentals for Diesel and Heavy Equipment Technicians .....	1 cr
HEOM 1165	CDL .....	3 cr
MATH 1500	Applied Math.....	3 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).

Minnesota Transfer Curriculum courses .....15 cr

## GRADUATION REQUIREMENT - 67 CREDITS

*\*Denotes Prerequisites*

## Semester Course Requirements

### Semester One (20 credits)

DHET 1103	Introduction to Construction Equipment	OR	
HEOM 1200	Introduction to Operations	.....	1 cr
DHET 1135	Welding for Diesel Equipment	.....	1 cr
MATH 1500	Applied Math	.....	3 cr

*The following courses are offered in fall and spring semester:*

DHET 1125	Hydraulic Theory	.....	3 cr
DHET 1126	Hydraulic Lab	.....	5 cr
DHET 1128	Power Trains Theory	.....	2 cr
DHET 1129	Power Trains Lab	.....	5 cr

### Semester Two (20 credits)

DHET 1123	Customer Service/Service Management 1	.....	1 cr
ENGL 1520	Language Fundamentals	.....	1 cr
ENGL 1521	Technical Writing Fundamentals	.....	1 cr
ENGL 1522	Writing Fundamentals for Diesel and Heavy Equipment Technicians	.....	1 cr

*The following courses are offered in fall and spring semester:*

DHET 1107	Electrical Theory	.....	3 cr
DHET 1108	Electrical Lab	.....	5 cr
DHET 1117	Engine Theory	.....	3 cr
DHET 1118	Engine Lab	.....	5 cr

### Semester Three (Summer) (12 credits)

DHET 1130	Diesel Internship	.....	2 cr
DHET 1132*	On Highway Vehicle Systems Theory	.....	3 cr
DHET 1133*	On Highway Vehicle Systems Lab	.....	4 cr
HEOM 1165	CDL	.....	3 cr

### Semester Four (Fall) (15 credits)

Minnesota Transfer Curriculum courses	.....	15 cr
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## Course Prerequisites

Some courses may require appropriate test score or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

## Program Accreditation

This program is accredited by Associated Equipment Distributors (AED) Foundation.

## Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.