

# Diesel/Heavy Equipment Technology

## Associate in Applied Science (AAS)

The Diesel/Heavy Equipment Technology program prepares students for careers in any industry that utilizes trucks, heavy equipment, vessels or any other industrial equipment utilizing diesel power, hydraulics or other mechanical power transmission devices. Some of the many different areas of graduate employment include trucking firms, heavy equipment dealerships, logging companies, railroads, tug boats, industrial maintenance and sales.

With a strong emphasis on fluid power, LCC's Diesel/Heavy Equipment Technology program is one of few accepted for membership in the National Fluid Power Association. Students may enter the program any quarter and may transfer to pursue a bachelor's degree in Diesel Power at several baccalaureate institutions.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- [Diesel/Heavy Equipment Technology Associate in Applied Science \(AAS\) \(lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment\)](https://lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment)

## Degree Requirements

**Total credits required to earn this degree:** 129 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See [Diversity and Distribution Lists \(lowercolumbia.edu/publications/catalog/distribution-lists/\)](https://lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

## General Education Requirements

- **Communications:**  
5 credits – ENGL 110 Industrial Communications recommended.
- **Quantitative Skills:**  
5 credits – MATH 106 Industrial Mathematics recommended.
- **Human Relations / Social Science/ Diversity:**  
5 credits – BUS 144 Management of Human Relations:DIV meets all three of these requirements and is recommended.
- **Natural Sciences:**  
5 credits – DHET 240 Fluid Power/Electrical Theory & Design **OR**  
TECH 100 Advanced Principles of Technology **OR**  
MFG 130 Materials Science **OR**  
choose from the *Distribution List*.
- **Electives:**  
10 credits - Students choose from the following options:  
**Option 1:**
  - DHET 228 Commercial Driving (4 cr) **AND**  
DHET 229 Commercial Truck Driving Operation (6 cr)**Option 2:**
  - COLL 289 Employment Portfolio Seminar (1 cr) **AND**

DHET 288 Cooperative Work Experience (4 cr)**AND**  
WELD 105 Related Welding (5 cr)

A combination of the following courses, up to 5 credits, may be substituted for COLL 289 AND DHET 288 with program advisor permission: ACCT 101 (5 cr), ACCT 135 (5 cr), BUS& 101 (5 cr), BUS 150 (5 cr), CS 110 (3 cr), DHET 299 (1-5 cr), IT 111 (4 cr), MASP 107 (1-5 cr), or other WELD courses.

## Program Requirements

Course Code	Course Title	Number of Credits
DHET 100	Essentials of Mechanics	5
DHET 104	Electrical Systems	15
DHET 105	Vehicle Climate Control	5
DHET 114	Heavy Duty Brakes and Chassis	15
DHET 141	Hydraulics I	4
DHET 142	Hydraulics II	6
DHET 210	Diesel Engine Rebuild	15
DHET 215	Heavy Duty Engine Performance	15
DHET 220	Heavy Duty Power Trains	10
DHET 230	Advanced Shop Practices	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3

## Program Outcomes

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS Communication).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS Critical Thinking).
- Apply mathematical information to perform tasks in industrial technology (GS Quantitative Literacy).
- Interact effectively with individuals and groups (GS Teamwork).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.

- Complete tasks accurately, safely and within a given timeframe.
- Demonstrate competency in accurately following service information procedures and documenting work performed.
- Demonstrate the required skills needed to troubleshoot and repair advanced mechanical systems including hydraulic, electrical, air and hydraulic brakes, engine, power transmission, chassis and air conditioning.

## Notes

### **Revised December 2021 (effective Summer 2022)**

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements.