

# Diesel/Heavy Equipment Technology - AAS



**2023-24**

## Program map for 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.

*\*Total credits required to earn this degree: 124-132 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.*

**See also:** ( [lowercolumbia.edu/programs/trades](https://lowercolumbia.edu/programs/trades) )

- [Degree Requirements for Manufacturing, Trades and Transportation programs \( lowercolumbia.edu/programs/trades \)](https://lowercolumbia.edu/programs/trades)
- [Course descriptions in LCC Catalog \( lowercolumbia.edu/publications/catalog/courses \)](https://lowercolumbia.edu/publications/catalog/courses)
- [Distribution lists in LCC Catalog \( lowercolumbia.edu/publications/catalog/distribution-lists \)](https://lowercolumbia.edu/publications/catalog/distribution-lists)

*Please note that many course sequences only begin in fall quarter. Please check with your program advisor for more information.*

*Please review both the "By Quarter Overview" and "Detailed Class Sequence" tabs below.*

## By Quarter Overview

### First Quarter (Fall)

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- COLL 101: College Success 101 (2 credits)
- MFG 105: Industrial Safety (3 credits)

- DHET 141: Hydraulics I (4 credits)
  - *DHET 142 or Instructor permission\**
- DHET 142: Hydraulics II (6 credits)
  - *DHET 141 or MFG 140 or concurrent enrollment\**
- DHET 100: Essentials of Mechanics (5 credits)

*\*Pre- and/or co-requisite(s)*

## Second Quarter (Winter)

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- HLTH 105: First Aid, CPR and Bloodborne Pathogens (1 credit)
- DHET 104: Electrical Systems (15 credits)
  - *MFG 105 and HLTH 105\**
- MATH 106: Industrial Mathematics (5 credits)
  - *MATH 079 or TECH 079 with a C or better or instructor permission\**

*\*Pre- and/or co-requisite(s)*

## Third Quarter (Spring)

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- ENGL 110: Industrial Communication (5 credits)
- DHET 114: Heavy Duty Breaks and Chassis (15 credits)
  - *MFG 105 and HLTH 105\**

*\*Pre- and/or co-requisite(s)*

## Fourth Quarter (Summer)

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- BUS 144: Management of Human Relations: DIV (5 credits)
- DHET 105: Vehicle Climate Control (5 credits)
  - *AMTC 104 or DHET 104 or instructor permission\**
- WELD 105: Related Welding (5 credits)

*\*Pre- and/or co-requisite(s)*

## Fifth Quarter (Fall)

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- DHET 215: Heavy Duty Engine Performance (15 credits)
  - *DHET 104 or Instructor Permission\**
- COLL 289: Employment Portfolio Seminar (1 credit)

*\*Pre- and/or co-requisite(s)*

## Sixth Quarter (Winter)

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- DHET 210: Diesel Engine Rebuild (15 credits)
- DHET 288: Cooperative Work Experience (4 credits)
  - *Instructor or Cooperative Education Coordinator permission; Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.\**

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## Seventh Quarter (Spring)

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- DHET 220: Heavy Duty Power Trains (10 credits)
- DHET 230: Advanced Shop Practices (5 credits)
  - *Completion of 60 DHET credits\**
- DHET 240: Fluid Power/Electrical Theory and Design (5 credits)
  - *MATH 078/079\**

*\*Pre- and/or co-requisite(s)*

## Detailed Class Sequence

### 1. College Success 101

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COLL 101 (2 credits)

### 2. Industrial Safety

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MFG 105 (3 credits)

### 3. Hydraulics I

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DHET 141 (4 credits)

*Pre- and/or co-requisite(s): DHET 142 or Instructor permission*

### 4. Hydraulics II

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DHET 142 (6 credits)

*Pre- and/or co-requisite(s): DHET 141 or MFG 140 or concurrent enrollment*

### 5. Essentials of Mechanics

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DHET 100 (5 credits)

### 6. First Aid, CPR and Bloodborne Pathogens

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HLTH 105 (1 credit)

### 7. Electrical Systems

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DHET 104 (15 credits)

*Pre- and/or co-requisite(s): MFG 105 and HLTH 105*

### 8. Industrial Mathematics

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MATH 106 (5 credits)

*Pre- and/or co-requisite(s): MATH 079 or TECH 079 with a C or better or instructor permission*

## **9. Industrial Communication**

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ENGL 110 (5 credits)

## **10. Heavy Duty Breaks and Chassis**

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DHET 114 (15 credits)

*Pre- and/or co-requisite(s): MFG 105 and HLTH 105*

## **11. Management of Human Relations: DIV**

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BUS 144 (5 credits)

## **12. Vehicle Climate Control**

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DHET 105 (5 credits)

*Pre- and/or co-requisite(s): AMTC 104 or DHET 104 or instructor permission*

## **13. Related Welding**

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WELD 105 (5 credits)

## **14. Heavy Duty Engine Performance**

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DHET 215 (15 credits)

*Pre- and/or co-requisite(s): DHET 104 or Instructor Permission*

## **15. Employment Portfolio Seminar**

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COLL 289 (1 credit)

## **16. Diesel Engine Rebuild**

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DHET 210 (15 credits)

## **17. Cooperative Work Experience**

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DHET 288 (4 credits)

*Pre- and/or co-requisite(s): Instructor or Cooperative Education Coordinator permission; Concurrent requirements: COLL 289 or BTEC 294 or BUS 294 or IT 294 must be taken prior to or concurrent with this course.*

## 18. Heavy Duty Power Trains

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DHET 220 (10 credits)

## 19. Advanced Shop Practices

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DHET 230 (5 credits)

*Pre- and/or co-requisite(s): Completion of 60 DHET credits*

## 20. Fluid Power/Electrical Theory and Design

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DHET 240 (5 credits)

*Pre- and/or co-requisite(s): MATH 078/079*



## Program Maps for Manufacturing, Trades and Transportation ( [lowercolumbia.edu/program-maps/trades](http://lowercolumbia.edu/program-maps/trades) )

- **Advanced Manufacturing Technology - AAS (Engineering Technician and Multicraft Trades Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Engineering-Tech-Multicraft-Trades](http://lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Engineering-Tech-Multicraft-Trades) )**
- **Advanced Manufacturing Technology - AAS (Multicraft Trades and Production Technician Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Multicraft-Trades-Production-Tech](http://lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Multicraft-Trades-Production-Tech) )**
- **Advanced Manufacturing Technology - AAS (Production Technician and Engineering Technician Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Production-Tech-Engineering-Tech](http://lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Production-Tech-Engineering-Tech) )**
- **Advanced Manufacturing for BAS-OLTM - AAS-T (Transfer Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Advanced-Manufacturing-for-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Advanced-Manufacturing-for-BAS-OLTM) )**
- **Automotive Technology - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology](http://lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology) )**
- **Automotive Technology - AAS-T (BAS-OLTM Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Automotive-Technology-to-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Automotive-Technology-to-BAS-OLTM) )**
- **Automotive Technology - COP ( [lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair](http://lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair) )**
- **Commercial Truck Driving - COC ( [lowercolumbia.edu/program-maps/trades/COC-Commercial-Truck-Driving](http://lowercolumbia.edu/program-maps/trades/COC-Commercial-Truck-Driving) )**
- **Computer Numerical Control - COP ( [lowercolumbia.edu/program-maps/trades/COP-Computer-Numerical-Control](http://lowercolumbia.edu/program-maps/trades/COP-Computer-Numerical-Control) )**
- **Diesel/Heavy Equipment Preventative Maintenance - COP ( [lowercolumbia.edu/program-maps/trades/COP-Diesel-Heavy-Equipment-Preventative-Maintenance](http://lowercolumbia.edu/program-maps/trades/COP-Diesel-Heavy-Equipment-Preventative-Maintenance) )**

- **Diesel/Heavy Equipment Technology - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment](http://lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment) )**
- **Diesel/Heavy Equipment Technology - AAS-T (BAS-OLTM Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment-to-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment-to-BAS-OLTM) )**
- **Engineering Technician - COP ( [lowercolumbia.edu/program-maps/trades/COP-Engineering-Technician](http://lowercolumbia.edu/program-maps/trades/COP-Engineering-Technician) )**
- **Machine Trades - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades](http://lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades) )**
- **Machine Trades - AAS-T (BAS-OLTM Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades-to-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades-to-BAS-OLTM) )**
- **Machinist - COP ( [lowercolumbia.edu/program-maps/trades/COP-Machinist](http://lowercolumbia.edu/program-maps/trades/COP-Machinist) )**
- **Multicraft Trades - COP ( [lowercolumbia.edu/program-maps/trades/COP-Multicraft-Trades](http://lowercolumbia.edu/program-maps/trades/COP-Multicraft-Trades) )**
- **Production Technician - COP ( [lowercolumbia.edu/program-maps/trades/COP-Production-Technician](http://lowercolumbia.edu/program-maps/trades/COP-Production-Technician) )**
- **Welding - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Welding](http://lowercolumbia.edu/program-maps/trades/AAS-Welding) )**
- **Welding - COP ( [lowercolumbia.edu/program-maps/trades/COP-Welding](http://lowercolumbia.edu/program-maps/trades/COP-Welding) )**
- **Welding for BAS-OLTM - AAS-T (Transfer Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Welding-for-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Welding-for-BAS-OLTM) )**