

# Diesel and Heavy Equipment Technology

The Diesel and Heavy Equipment Technology program prepares individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field. The degree program prepares individuals to apply technical knowledge and skills to repair, service, and maintain diesel engines in vehicles such as Heavy Duty Trucks over one ton classification, buses, ships, railroad locomotives, and equipment as well as stationary diesel engines in electrical generators and related equipment.

For specific information about potential positions and wages in diesel and heavy equipment employment, visit the Central Piedmont Career Coach website.

## Diesel and Heavy Equipment Technology (A60460)

### General Education Requirements

ENG 111	Writing and Inquiry	3.0	
ACA 122	College Transfer Success	1.0	
Select one of the following:		3.0	
COM 110	Introduction to Communication		
or COM 231	Public Speaking		
Select one of the following:		3.0	
MAT 110	Mathematical Measurement and Literacy		
MAT 143	Quantitative Literacy		
MAT 152	Statistical Methods I		
MAT 171	Precalculus Algebra		
Select one of the following:		3.0	
ART 111	Art Appreciation		
ART 114	Art History Survey I		
ART 115	Art History Survey II		
DRA 111	Theatre Appreciation		
HUM 120	Cultural Studies		
HUM 130	Myth in Human Culture		
MUS 110	Music Appreciation		
MUS 112	Introduction to Jazz		
PHI 215	Philosophical Issues		
PHI 240	Introduction to Ethics		
REL 110	World Religions		
Select one of the following:			3.0
ECO 251	Principles of Microeconomics		
ECO 252	Principles of Macroeconomics		
HIS 111	World Civilizations I		
HIS 112	World Civilizations II		
HIS 131	American History I		
HIS 132	American History II		
POL 120	American Government		
PSY 150	General Psychology		
SOC 210	Introduction to Sociology		

### Major Requirements

TRN 110	Introduction to Transport Technology	2.0
TRN 120	Basic Transportation Electricity	5.0
TRN 140	Transportation Climate Control	2.0
HET 110	Diesel Engines	6.0
HET 114	Power Trains	5.0
HET 125	Preventive Maintenance (Major Others)	2.0

### Major Others Requirements

Select 22 credits from the following:		22.0	
ATT 125	Hybrid-Electric Transportation		
ATT 140	Emerging Transportation Technology		
ATT 150	Sustainable Transportation Technology		
TRN 170	PC Skills for Transportation		
TRN 180	Basic Welding for Transportation		
HET 115	Electronic Engines		
HET 128	Medium/Heavy Duty Tune Up		
HET 230	Air Brakes		
HET 231	Medium/Heavy Duty Brake Systems		
HET 233	Suspension and Steering		
HYD 110	Hydraulics/Pneumatics I		
HYD 134	Hydraulic/Hydrostatic Construction		
HYD 210	Advanced Hydraulics		
Select 8 credits from the following:			8.0
WBL 112	Work-Based Learning I		
WBL 122	Work-Based Learning II		
WBL 132	Work-Based Learning III		
WBL 212	Work-Based Learning IV		
HET 126	Preventive Maintenance Lab		
HET 232	Medium/Heavy Duty Brake Systems Lab		
TRN 145	Advanced Transportation Electronics		
TRN 180A	Basic Welding for Transportation Lab		
TRN 140A	Transportation Climate Control Lab		
TRN 120A	Basic Transportation Electrical Lab		
AUT 163	Advanced Automotive Electricity		
ATT 130	Biofuels for Transportation		
ATT 135	Gaseous Fuels for Transportation		

**Total Credits** **68**

## Diesel and Heavy Equipment Technology Diplomas (D60460)

### Diesel and Heavy Equipment Technology Diploma (D60460-D3)

#### General Education Requirements

ENG 111	Writing and Inquiry	3.0
MAT 110	Mathematical Measurement and Literacy	3.0

#### Major Requirements

TRN 110	Introduction to Transport Technology	2.0
TRN 120	Basic Transportation Electricity	5.0
TRN 140	Transportation Climate Control	2.0
HET 110	Diesel Engines	6.0
HET 114	Power Trains	5.0

HET 125	Preventive Maintenance	2.0
<b>Major Other - Select 14 credits from the following:</b>		<b>14.0</b>
TRN 170	PC Skills for Transportation	
TRN 180	Basic Welding for Transportation	
HET 115	Electronic Engines	
HYD 112	Hydraulics-Medium and Heavy Duty	
HET 231	Medium/Heavy Duty Brake Systems	
HET 233	Suspension and Steering	
HYD 110	Hydraulics/Pneumatics I	
HYD 112	Hydraulics-Medium and Heavy Duty	
HYD 134	Hydraulic/Hydrostatic Construction	
HYD 210	Advanced Hydraulics	
<b>Technical Elective - Select 6 Credits from the following:</b>		<b>6.0</b>
TRN 120A	Basic Transportation Electrical Lab	
TRN 140A	Transportation Climate Control Lab	
TRN 180A	Basic Welding for Transportation Lab	
HET 126	Preventive Maintenance Lab	
HET 230	Air Brakes	
HET 233	Suspension and Steering	
WBL 112R	Work-Based Learning I	
<b>Total Credits</b>		<b>48</b>

## Diesel and Heavy Equipment Technology Certificates (C60460)

- Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair I (C60460-C3) (p. 2)
- Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair II (C60460-C4) (p. 2)
- Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair III (C60460-C5) (p. 2)
- Diesel and Heavy Equipment Technology Certificate Specialization in Over the Road Specialist I (C60460-10) (p. 2)
- Diesel and Heavy Equipment Technology Certificate Specialization in Over the Road Specialist II (C60460-11) (p. 2)

## Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair I (C60460-C3)

### Major Requirements

TRN 110	Introduction to Transport Technology	2.0
TRN 140	Transportation Climate Control	2.0
HET 110	Diesel Engines	6.0
TRN 140A	Transportation Climate Control Lab	2.0
TRN 170	PC Skills for Transportation	2.0
HET 231	Medium/Heavy Duty Brake Systems	2.0
HET 232	Medium/Heavy Duty Brake Systems Lab	1.0
<b>Total Credits</b>		<b>17</b>

## Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair II (C60460-C4)

### Major Requirements

TRN 140	Transportation Climate Control	2.0
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TRN 140A	Transportation Climate Control Lab	2.0
TRN 180	Basic Welding for Transportation	3.0
TRN 180A	Basic Welding for Transportation Lab	1.0
HET 233	Suspension and Steering	4.0
WBL 112	Work-Based Learning I	2.0
<b>Total Credits</b>		<b>14</b>

## Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair III (C60460-C5)

### Major Requirements

HET 114	Power Trains	5.0
HET 125	Preventive Maintenance	2.0
HET 126	Preventive Maintenance Lab	1.0
HET 128	Medium/Heavy Duty Tune Up	2.0
HET 230	Air Brakes	2.0
HYD 110	Hydraulics/Pneumatics I	3.0
WBL 112	Work-Based Learning I	2.0
<b>Total Credits</b>		<b>17</b>

## Diesel and Heavy Equipment Technology Certificate Specialization in Over the Road Specialist I (C60460-10)

### Major Requirements:

TRN 120	Basic Transportation Electricity	5.0
TRN 120A	Basic Transportation Electrical Lab	1.0
HET 231	Medium/Heavy Duty Brake Systems	2.0
HET 232	Medium/Heavy Duty Brake Systems Lab	1.0
HET 125	Preventive Maintenance	2.0
HET 126	Preventive Maintenance Lab	1.0
<b>Total Credits</b>		<b>12</b>

## Diesel and Heavy Equipment Technology Certificate Specialization in Over the Road Specialist II (C60460-11)

### Major Requirements:

HET 115	Electronic Engines	3.0
HET 128	Medium/Heavy Duty Tune Up	2.0
HET 233	Suspension and Steering	4.0
TRN 140	Transportation Climate Control	2.0
TRN 140A	Transportation Climate Control Lab	2.0
HYD 110	Hydraulics/Pneumatics I	3.0
<b>Total Credits</b>		<b>16</b>

## Diesel and Heavy Equipment Technology Suggested Course Sequence

The following is the suggested plan for when to take each course to complete the Associate in Applied Science degree, based on the program requirements of the 2024-2025 catalog. This is only a recommendation — you may take courses in another order upon consultation with your advisor. This plan is based on you starting with college-level math and English courses, starting your program in the fall, and attending full-time. You can also follow this sequence if you attend part-time. Speak with your academic advisor about the plan and any questions. This program

might also offer diplomas or certificates; visit the catalog or contact the program for details. Visit the Academic Advising page for instructions on locating your assigned advisor: <https://www.cpcc.edu/academics/academic-advising>

<b>Term I</b>		<b>Credits</b>
TRN 120	Basic Transportation Electricity	5.0
TRN 120A	Basic Transportation Electrical Lab	1.0
HET 125	Preventive Maintenance	2.0
HET 126	Preventive Maintenance Lab	1.0
HET 231	Medium/Heavy Duty Brake Systems	2.0
HET 232	Medium/Heavy Duty Brake Systems Lab	1.0
ENG 111	Writing and Inquiry	3.0
ACA 122	College Transfer Success	1.0

**You may have completed program certificate C60460-10. Confirm eligibility with your academic advisor.**

<b>Credits</b>		<b>16</b>
<b>Term II</b>		
TRN 110	Introduction to Transport Technology	2.0
TRN 170	PC Skills for Transportation	2.0
HET 115	Electronic Engines	3.0
HET 128	Medium/Heavy Duty Tune Up	2.0
HET 233	Suspension and Steering	4.0
MAT 110	Mathematical Measurement and Literacy	3.0
<b>Credits</b>		<b>16</b>

<b>Term III</b>		
TRN 140	Transportation Climate Control	2.0
TRN 140A	Transportation Climate Control Lab	2.0
HYD 110	Hydraulics/Pneumatics I	3.0

**You may have completed program certificate C60460-11. Confirm eligibility with your academic advisor.**

<b>Credits</b>		<b>7</b>
<b>Term IV</b>		
HET 110	Diesel Engines	6.0
TRN 180	Basic Welding for Transportation	3.0
TRN 180A	Basic Welding for Transportation Lab	1.0
COM 110 or COM 231	Introduction to Communication or Public Speaking	3.0

**You may have completed a program certificate(s). Confirm eligibility with your academic advisor.**

<b>Credits</b>		<b>13</b>
<b>Term V</b>		
HET 114	Power Trains	5.0
WBL 112	Work-Based Learning I	2.0
ATT 140 or ATT 150	Emerging Transportation Technology or Sustainable Transportation Technology	3.0
Humanities/Fine Arts		3.0
Behavioral/Social Science		3.0

**You may have completed a program certificate(s). Confirm eligibility with your academic advisor.**

<b>Credits</b>		<b>16</b>
<b>Total Credits</b>		<b>68</b>