



For more information contact:

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All applicants meeting the appropriate academic requirement and technical standards shall be considered equally for admission to a community college or any academic program thereof regardless of race, color, religion, sex, marital status, beliefs, sexual orientation, or physical or mental disability.

#### How to Apply

Please submit the following items to the Admissions Office

1. A completed HCTC admissions application.
2. Official high school transcripts or GED scores, as applicable.
3. Official transcripts from other non-KCTCS colleges or institutions you have attended, if applicable.
4. ACT scores, if available. If you have not taken the ACT or you did not receive an *18 or higher* in Writing, Reading, and/or Mathematics sections, you must take the COMPASS placement test, which is given at HCTC.

To contact the Admissions Office, call  
800-246-7521, Ext. 73311.

[www.Hazard.kctcs.edu](http://www.Hazard.kctcs.edu)



# Diesel Technology



# Mission *Statement*

Hazard Community and Technical College delivers accessible, high quality education by providing academic programs, technical education, and training in a learning-centered environment. The College provides learners with varied experiences while supporting their transfer to other colleges and universities; training for employment; entrepreneurial, economic, cultural and leadership opportunities; and collaborative efforts with other schools and institutions.

Hazard Community and Technical College values excellence in teaching, lifelong learning, and service with the highest regard for ethics and the dignity of work, the heritage of Appalachia, and a shared appreciation for cultural diversity.

Hazard Community and Technical College, a member of the Kentucky Community and Technical College System, is a public comprehensive learning community serving southeastern Kentucky.





Hazard Community and Technical College

The Associate of Applied Science  
Degree in General  
Occupational/Technical Studies Guidelines

In order to receive this degree you must do the following:

Complete general education components (15 credit hours minimum in specified areas - Mathematics, Natural Sciences, Social/ Behavioral Sciences, Humanities/ Fine Arts, Writing/Accessing Information)

Complete computer literacy.

Complete 42 - 58 credit hours of technical course work (Industrial Technology, Business Technology, Health and Human Services or other).

Verify residency requirements - at least 25% of the approved curriculum credits (15 - 19 credit hours) must be completed at the institution granting the degree (degree total 60 - 76 credit hours)

Develop learner degree completion plan.

Technical courses to be utilized in this degree will be taken from the list of approved technical courses at Hazard Community and Technical College.

\*Listing of General Education Requirements may be found in KCTCS catalog.

NOTES:

Lined area for taking notes, consisting of 20 horizontal lines.

**Certificates continued:**

**Preventive Maintenance Mechanic**

DIT 103	Preventive Maintenance Lab Electives (Diesel Courses/Industrial Education Core)	1 11
<b>Total</b>		<b>12</b>

**Medium And Heavy Truck Mechanic Helper**

ADX 120	Basic Automotive Electricity <b>AND</b>	3
ADX 121	Basic Automotive Electricity Lab <b>OR</b>	2
BEX 100	Basic Electricity for Non-Majors <b>AND</b>	(3)
BEX 101	Basic Electricity Lab for Non-Majors <b>OR</b>	(2)
ENGT 110	Circuits I <b>AND</b>	(3)
ENGT 111	Circuits I Lab 1 <b>AND</b>	(1)
ENGT 113	Circuits I Lab 2	(1)
ADX 150	Engine Repair <b>AND</b>	3
ADX 151	Engine Repair Lab <b>OR</b>	2
DIT 110	Introduction to Diesel Engines <b>AND</b>	(3)
DIT 111	Introduction to Diesel Engines Lab	(2)
ADX 260	Electrical Systems <b>AND</b>	3
ADX 261	Electrical Systems Lab <b>OR</b>	2
DIT 190	Electrical Systems for Diesel Equipment <b>AND</b>	(3)
DIT 191	Electrical Systems for Diesel Equipment Lab	(2)
DIT 112	Diesel Engine Repair	3
DIT 113	Diesel Engine Repair Lab	2
DIT 160	Steering and Suspension	3
DIT 161	Steering and Suspension Lab	2
DIT 180	Brakes	3
DIT 181	Brakes Lab	2
<b>Total</b>		<b>30</b>

The skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks are emphasized in this program. Students are provided instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

Computer literacy must be demonstrated either by competency exam or by successfully completing a computer literacy course prior to 40 credits hours in diploma and degree credentials.

A student must receive a grade of "C" or better to receive credit for successful completion of courses in the diesel technology curriculum.

**Hazard Community and Technical College  
Technical Campus  
Diesel Technology**

Course	Title	Credit Hrs
Graduation Requirements - Diploma		
General Education		
<b>REQUIRED COURSES</b>		
Area 1	Writing/Accessing Information, Oral Communications, Humanities, Heritage, or Foreign Language	3
Area 2	Social Science, Behavioral Science, Science, or Mathematics	3
Area 3	Computer Literacy course or demonstrated competency	0-3
<b>SUBTOTAL</b>		<b>6-9</b>
<b>Technical Courses</b>		
ADX 170	Climate Control	3
ADX 171	Climate Control Lab	1
DIT 100	Mechanical Concepts <b>OR</b>	3
PMX 100	Precision Measurement	(3)
DIT 103	Preventive Maintenance Lab	1
DIT 110	Introduction to Diesel Engines <b>AND</b>	3
DIT 111	Introduction to Diesel Engines Lab <b>OR</b>	2
ADX 150	Engine Repair <b>AND</b>	(3)
ADX 151	Engine Repair Lab	(2)
DIT 150	Power Trains	3
DIT 151	Power Trains Lab	2
DIT 112	Diesel Engine Repair	3
DIT 113	Diesel Engine Repair Lab	2
DIT 120	Introduction to Maintenance Welding <b>AND</b>	3
DIT 121	Introduction to Maintenance Welding Lab <b>OR</b>	2
IMT 100	Welding for Maintenance <b>AND</b>	(3)
IMT 101	Welding for Maintenance Lab <b>OR</b>	(2)
WLD 120	Shielded Metal Arc Welding (SMAW) <b>AND</b>	(3)
WLD 121	SMAW Fillet Lab	(2)
DIT 122	Undercarriage	3
DIT 123	Undercarriage Lab	2
DIT 140	Hydraulics <b>AND</b>	3
DIT 141	Hydraulics Lab <b>OR</b>	2
FPX 100	Fluid Power <b>AND</b>	(3)
FPX 101	Fluid Power Lab	(2)
DIT 152	Powertrain for Construction Equipment	3
DIT 153	Powertrain for Construction Equipment Lab	2
DIT 160	Steering and Suspension	3
DIT 161	Steering and Suspension Lab	2
DIT 180	Brakes	3
DIT 181	Brakes Lab	2
DIT 190	Electrical Systems for Diesel Equipment <b>AND</b>	3
DIT 191	Electrical Systems for Diesel Equipment Lab <b>OR</b>	2
ADX 260	Electrical Systems <b>AND</b>	(3)
ADX 261	Electrical Systems Lab	(2)
DIT 199	Cooperative Education <b>OR</b>	1
DIT 198	Practicum	(1)
<b>Subtotal</b>		<b>59</b>
<b>Total Credits</b>		<b>65-68</b>

## Certificates:

**Construction Equipment Mechanic Helper**

ADX 150	Engine Repair AND	3
ADX 151	Engine Repair Lab OR	2
DIT 110	Introduction to Diesel Engines AND	(3)
DIT 111	Introduction to Diesel Engines Lab	(2)
ADX 260	Electrical Systems AND	3
ADX 261	Electrical Systems Lab OR	2
DIT 190	Electrical Systems for Diesel Equipment AND	(3)
DIT 191	Electrical Systems for Diesel Equipment Lab	(2)
DIT 112	Diesel Engine Repair	3
DIT 113	Diesel Engine Repair Lab	2
DIT 160	Steering and Suspension	3
DIT 161	Steering and Suspension Lab	2
DIT 180	Brakes	3
DIT 181	Brakes Lab	2
	<b>Total</b>	<b>25</b>

**Mobile Air Conditioning Mechanic**

ADX 170	Climate Control	3
ADX 171	Climate Control Lab	1
	Electives (Diesel Courses/Industrial Education Core)	8
	<b>Total</b>	<b>12</b>

**Heavy Duty Brake Mechanic**

DIT 180	Brakes	3
DIT 181	Brakes Lab	2
	Electives (Diesel Courses/Industrial Education Core)	7
	<b>Total</b>	<b>12</b>

**Diesel Engine Mechanic**

DIT 110	Introduction to Diesel Engines AND	3
DIT 111	Introduction to Diesel Engines Lab OR	2
ADX 150	Engine Repair AND	(3)
ADX 151	Engine Repair Lab	(2)
DIT 112	Diesel Engine Repair	3
DIT 113	Diesel Engine Repair Lab	2
	Electives (Diesel Courses/Industrial Education Core)	2
	<b>Total</b>	<b>12</b>

**Diesel Mechanics Assistant**

DIT 100	Mechanical Concepts	3
DIT 103	Preventive Maintenance Lab	1
DIT 110	Introduction to Diesel Engines	3
DIT 111	Introduction to Diesel Engines Lab	2
DIT 112	Diesel Engine Repair	3
DIT 113	Diesel Engine Repair Lab	2
DIT 160	Steering and Suspension	3
DIT 161	Steering and Suspension Lab	2
DIT 180	Brakes	3
DIT 181	Brakes Lab	2
DIT 190	Electrical Systems for Diesel Equipment	3
DIT 191	Electrical Systems for Diesel Equipment Lab	2
	<b>Total</b>	<b>29</b>

## Certificates continued:

**Diesel Steering & Suspension Mechanic**

DIT 160	Steering and Suspension	3
DIT 161	Steering and Suspension Lab	2
	Electives	
	(Diesel Courses/Industrial Education Core)	7
	<b>Total</b>	<b>12</b>

**Electrical/Electronics Systems Mechanic**

BEX 100	Basic Electricity for Non-Majors AND	3
BEX 101	Basic Electricity Lab for Non-Majors OR	2
ADX 120	Basic Automotive Electricity AND	(3)
ADX 121	Basic Automotive Electricity Lab OR	(2)
ENGT 110	Circuits I AND	(3)
ENGT 111	Circuits I Lab 1 AND	(1)
ENGT 113	Circuits I Lab 2	(1)
DIT 190	Electrical Systems for Diesel Equipment AND	3
DIT 191	Electrical Systems for Diesel Equipment Lab OR	2
ADX 260	Electrical Systems AND	(3)
ADX 261	Electrical Systems Lab	(2)
	Electives	
	(Diesel Courses/Industrial Education Core)	2
	<b>Total</b>	<b>12</b>

**Heavy Duty Drive Train Mechanic**

DIT 150	Power Trains	3
DIT 151	Power Trains Lab	2
	Electives	
	(Diesel Courses/Industrial Education Core)	7
	<b>Total</b>	<b>12</b>

**Undercarriage Mechanic**

DIT 122	Undercarriage	3
DIT 123	Undercarriage Lab	2
	Electives	
	(Diesel Courses/Industrial Education Core)	7
	<b>Total</b>	<b>12</b>

**Fluid Power Mechanic**

FPX 100	Fluid Power OR	3
DIT 140	Hydraulics	(3)
FPX 101	Fluid Power Lab OR	2
DIT 141	Hydraulics Lab	(2)
	Electives	
	(Diesel Courses/Industrial Education Core)	7
	<b>Total</b>	<b>12</b>