

2018-2019

SOUTHEAST  
COMMUNITY  
COLLEGE  
NEBRASKA

# DIESEL TECHNOLOGY - TRUCK

Associate of  
Applied Science  
Degree

MILFORD CAMPUS

[www.southeast.edu/DieselTruck](http://www.southeast.edu/DieselTruck)



*Careers in diesel trucking industries offer a variety of challenging and rewarding opportunities. Graduates can specialize in electrical/electronic systems, power trains, suspension, braking, hydraulics systems and, of course, engine/fuel systems. Many people choose to be masters of all truck systems to personally handle any customer concern. Diesel engines are used in machines that affect every part of our lives, including all types of industrial applications as well as many personal vehicles. In the Diesel Technology-Truck program, you will be trained in all phases of light, medium and heavy over-the-road truck repair. There are tremendous employment opportunities available now and this trend will continue in the future.*



### Diesel Technology - Truck Courses:

Course offerings and prerequisites will be determined by the program. A grade of "C" or higher in all DESL classes is required to progress through the program.

Course #	Course title	Credit	hrs
DESL1201	Electrical Systems I	2.0	
DESL1211	Batteries & Cranking Circuits	2.0	
DESL1221	Electronic Ignition & Charging Systems	2.0	
DESL1231	Power Trains I	3.0	
DESL1251	Theory of Engine Operation	2.0	
DESL1261	Shop Processes & Safety	3.0	
DESL1271	Fuel Systems I	2.0	
DESL1281	Valve Trains	3.0	
DESL1301	Engine Overhaul & Inspection	3.0	
DESL1321	Fuel Systems II	2.0	
DESL1341	Air Brakes-Truck	4.5	
DESL1352	Electrical/Electronic Systems II	2.0	
DESL1355	Steering and Suspension	5.0	
DESL1361	Hydraulic Brakes	3.0	
DESL1385	Basic Hydraulics	2.0	
DESL1441	Heating and Air Conditioning I-Truck	3.5	
DESL1451	Conventional Transmissions & Clutches-Truck	6.5	
DESL1471	Truck Final Drives-Truck	3.0	
DESL1481	Preventative Maintenance & Inspection	5.0	
DESL2302	Heating & Air Conditioning II-Truck	2.5	
DESL2432	Automatic Truck Transmissions	4.5	
DESL2452	Electrical Systems III	3.5	
DESL2482	Electronic Diesel Engine	5.0	
DESL2901	Cooperative Experience - Truck	10.0	
WELD1191	GMAW and SMAW Industrial	3.0	
WELD1189	Shielded Metal Arc Diesel Welding	1.0	
<b>88.0 hours</b>			
Optional:			
TRUK1101	CDL-Class A Training	3.5	



This program is accredited by the National Automotive Technicians Education Foundation, 101 Blue Seal Drive, Suite 101, Leesburg,

VA 20175, 703-669-6125, [www.natef.org](http://www.natef.org). The program is certified by NATEF and is led by ASE-certified instructors. This program is affiliated with ASE. The program provides students with skills to become entry-level technicians in the diesel truck service industry. Students are required to provide or purchase a basic tool set during the first quarter. A required tool list is on the back. Students are required to wear program shirts while in classroom or laboratory settings. Shirts may be purchased in the SCC Campus Store.

### Graduate Earnings

Recent graduates report an average starting wage of \$17.20 per hour.

### For more information contact:

Lester Breidenstine, Program Chair  
402-761-8328, 800-933-7223 ext. 8328  
[lbreiden@southeast.edu](mailto:lbreiden@southeast.edu)

or the College Admissions Office  
Milford 402-761-8243, 800-933-7223 ext. 8243

Equal Opportunity/NonDiscrimination Policy - It is the policy of Southeast Community College to provide equal opportunity and nondiscrimination in all admission, attendance, and employment matters to all persons without regard to race, color, religion, sex, age, marital status, national origin, ethnicity, veteran status, sexual orientation, disability, or other factors prohibited by law or College policy. Inquiries concerning the application of Southeast Community College's policies on equal opportunity and nondiscrimination should be directed to the Vice President for Access/Equity/Diversity, SCC Area Office, 301 S. 68th Street Place, Lincoln, NE 68510, 402-323-3412, FAX 402-323-3420, or [jsoto@southeast.edu](mailto:jsoto@southeast.edu). This publication should not be considered a contract between SCC and any prospective student. SCC's Board of Governors reserves the right to make changes in this publication during the life of the publication and without notice. A0714 - DESL (06/18)

### General Education Requirements:

Contact your program advisor to select general education courses from each category which will meet your program's graduation requirements.

See the General Education pages online for a complete list.

(One class from each area below.)

Oral Communications	4.5
Written Communications	4.5
Critical Thinking & Problem Solving	6.0
PHYS1150 - Descriptive Physics	

(Plus two classes from the three areas below; no two classes from the same area.)

Global Awareness and Citizenship, Analytical, Quantitative and Scientific Reasoning, and/or Career and Life Skills.

See catalog for eligible classes. 9.0

**24.0 hours**

### Estimated Expenses

Nebraska Resident tuition/fee rate is \$69.50 per credit hour. Out-of-state tuition/fee rate is \$83.50 per credit hour. Graduation fee is \$25.

Housing is available at Beatrice and Milford campuses only. Tuition, books and fees are dependent upon classes taken each quarter.

Students should plan a budget that includes room, meals, clothing, laundry, medical care, recreation and entertainment, transportation, insurance, etc.

#### FIRST QUARTER

Tuition And Fees	\$1,564
Books	800
Tools	1,657
Supplies (minimum of 3 uniform shirts)	350
<b>Total</b>	<b>\$4,371</b>

#### SECOND QUARTER

Tuition And Fees	\$1,390
Books	290
Tools	909
<b>Total</b>	<b>\$2,589</b>

#### THIRD QUARTER

Tuition And Fees	\$1,529
Books	165
Tools	2,452
<b>Total</b>	<b>\$4,146</b>

#### FOURTH QUARTER

Tuition And Fees	\$1,355
Books	210
<b>Total</b>	<b>\$1,565</b>

#### FIFTH QUARTER

Tuition And Fees	\$1,390
Books	225
Tools (may be purchased from Optional list)	
<b>Total</b>	<b>\$1,615</b>

#### SIXTH QUARTER

Tuition And Fees	\$695
COOP Quarter	
<b>Total</b>	<b>\$695</b>
<b>Total Estimate For Program</b>	<b>\$14,981</b>



## Basic Tools for Diesel Technology – Truck Program

\* May be purchased at the SCC Milford Campus Store. Tools needed the first week of school (meet with instructor first).

\*\* May be purchased at the Milford Campus Parts Store.

### SUPPLIES NEEDED FOR FIRST QUARTER

- \* Safety Glasses (must meet Z87 specs)
- \* Notebook Filler Paper
- \* 6 - Grommet Folders/Dividers
- \* 1 - Pack of Pens
- \* 3 - Pencils
- \* Highlighter
- \* Ruler
- \* 1 - pack Colored Pencils
- \* Large 3-Ring Notebook
- \* Hearing Protection
- \* Arc Welding Helmet w/#10 Lens and 2 clear plastic lenses
- \*\* Electrical Test Lead Kit
- \* Uniforms (shirts) (3-5 minimum)

**(SPECIAL NOTE: The 2nd day of the quarter the student is required to have in their possession the following named tools:**

1 - Fluke Model 87 or 88 Multimeter (NO SUBSTITUTES)

1 - 0 to 1" Micrometer (Non-Digital, Electronic or Mechanical)  
(Check w/instructor before purchasing for requirements)

**Do NOT PURCHASE from a vendor that must order & deliver at a later date!**

### TOOLS REQUIRED TO ENTER FIRST QUARTER

1 - Hand Carry Tool Box -lockable (max. size 9" wide x 20" long x 12" high)

\*1 - Padlock

1 - Combination Pliers

\*1 - 6" Needle Nose Pliers

1 - 7" Diagonal Pliers

\*1 - 6" Steel Rule - w/English & Metric Scales

1 - Hacksaw/with blades

1 - 15" Pinch Bar

1 - 16 oz. Ball Peen Hammer

1 - .0015" - .030" Bent Feeler Gauge Set

1 - Gasket Scraper

1 - 10" Half Round File/with handle

1 - 10" Single Cut Mill Bastard File/with handle

1 - 10" x 1/4" Round File/with handle

1 - File Card

1 - Electrical Pliers, Wire Crimper/Cutter/Stripper

1 - 1 1/2" Flat Tip Screwdriver

1 - 2 7/8" Flat Tip Screwdriver

1 - 4" Flat Tip Screwdriver

1 - 6" Flat Tip Screwdriver

1 - 8" Flat Tip Screwdriver

1 - No. 1 Phillips Screwdriver

1 - No. 2 Phillips Screwdriver

1 - No. 3 Phillips Screwdriver

1 - No. 4 Phillips Screwdriver

1 - Brass Drift (1/2" diameter)

1 - Center Punch

1 - 1/8" Pin Punch

1 - 5/32" Pin Punch

1 - 3/16" Pin Punch

1 - 1/4" Pin Punch

1 - Respirator (Replaceable Cartridge Type)

1 - Convertible Retaining Ring Pliers, .038" Tip, 0° Angle Tip

1 - Convertible Retaining Ring Pliers, .070" Tip, 0° Angle Tip

1 - Convertible Retaining Ring Pliers, .090" Tip, 0° Angle Tip

1 - Duck Bill Lock Ring Pliers, Narrow Tip

1 - Duck Bill Lock Ring Pliers, Wide Tip

1 - Metric Combination Wrench Set (8mm to 19mm)

1 - 1/8" Starting Punch

1 - 1/4" Starting Punch

1 - 3/8" Cold Chisel

1 - 1/2" Cold Chisel

1 - 3/4" Cold Chisel

1 - Combination Wrenches (3/8" to 3/4")

1 - 1/4" Drive Socket Set (1/4" to 1/2")

- 6 Point, including ratchet, Short Extension Drive Handle, & Universal Joint

1 - 1/4" Drive Socket Set (1/4" to 1/2") - 6 Point, Deep

1 - 1/4" Drive Socket Set (4mm to 15mm) - 6 Point, Deep

1 - 1/4" Drive Socket Set (4mm to 15mm) - 6 Point, Shallow

1 - 3/8" Drive Socket Set (3/8" to 7/8") - 12 Point, including Ratchet

4" & 6" Extensions, Flex and Speed Handle and Universal Joint

1 - 3/8" Drive Metric Socket Set, 12 point (8mm to 19mm)

1 - Jackson Headgear, Oxyacetylene Welding Shield & Safety

1 - Metric Allen Wrench Set

1 - English Allen Wrench Set

1 - English Thread Pitch Gage

1 - Metric Thread Pitch Gage

1 - Scribe

1 - Torx Socket Set - E5 through E18

### ADDITIONAL TOOLS REQUIRED FOR SECOND QUARTER

1 - 1/2" Drive Torque Wrench (150 ft. lb. minimum)

1 - 1/2" Drive Metric Socket Set (10mm to 27mm)

1 - 1/2" Drive Socket Set (3/8" to 1 1/4"), 12 Point, including Ratchet,

4" & 6" Extensions, Flex Handle, & Universal Joint

1 - 'O' Ring Pick Set (Snap-on A5A204A or equivalent)

1 - 1/2" to 3/8" Adapter

1 - 1/2" Drive 3/4" Deep Socket-12 point

1 - 1/2" Drive 19mm Deep Socket-12 point

1 - Engine Stethoscope

1 - Dial Indicator w/Magnetic base (1" Travel Indicator)

1 - Torx Screwdrivers (Include: T8 through T45)

1 - 3/8" to 1/2" Adapter

1 - Telescopic Magnetic Pick-Up Tool

1 - Telescopic Handled Mirror

1 - Penlight

### ADDITIONAL TOOLS REQUIRED FOR THIRD QUARTER

1 - Roll-A-Way Tool Box (Top Chest - Optional) (Maximum 55" long — 55" includes hang/add on boxes)

1 - Water Pump or Channel Lock Pliers

1 - Vise Grip Pliers

1 - Tire Tread Depth Gauge

1 - Mechanical Claw Pick-Up Tool

1 - 6" Dial Caliper

1 - Compothane "Dead Blow" Hammer, 3 lb.

1 - Machine Hammer, 5 lb.

1 - Rolling Head Bar (Blue Point 2032 or Equivalent)

1 - Combination Wrench Set (13/16" to 1 1/4")

1 - Gasket Scraper

1 - Creeper

1 - 3/8" Variable Speed/Reversible Drill (Electric/Air)

1 - OTC #7028 Clutch Adjusting Wrench

1 - 3/8" x 7/16" Flare Nut Wrench, Double Box End

1 - 1/2" x 9/16" Flare Nut Wrench, Double Box End

1 - 5/8" x 3/4" Flare Nut Wrench, Double Box End

1 - Pair of Tweezers

1 - Cotter Pin/Seal Puller (Snap-On #59094B or equivalent)

1 - Bearing Race Punch (MAC PB37L or equivalent)

1 - Twist Drill Index 1/16" to 1/2" by 64ths

1 - Cartridge Grease Gun w/Flex Hose (14.1 oz.)

1 - Retaining Ring Pliers, .038 Tip, 0-degree angle tip

1 - 3/8" Drive Torque Wrench (5 ft.-lbs. to 75 ft.-lbs.)

1 - Utility Light w/10ft. Cord (Troublelight)

1 - Brass Drift (2" x 12")

1 - Truck Oil Filter Strap Wrench

1 - Truck Tire Air Pressure Gauge

1 - Straight Feeler Gage Set

1 - 12" Tape Measure

1 - 3/8" Drive Crowfoot Open End Set (English)

1 - 3/8" Drive Crowfoot Open End Set (Metric)

1 - Allen Head Socket Set (English) (3/8" Drive)

1 - Allen Head Socket Set (Metric) (3/8" Drove)

1 - Torx Bit Socket Set (1/4" - 3/8" Drive, T8 to T55)

1 - Schrader Valve Tool

1 - Electronic Connector Tool (Blue Point TA500GM or equivalent)

1 - Electronic Connector Tool (Blue Point GA500A or equivalent)

1 - 1/2" Drive Long Ratchet (20" long or more)

1 - Combination Wrench Set (20mm to 24mm)

1 - Air Conditioning Service Wrench (1/4" to 3/16" square drive on one end w/1/2" to 9/16" Hex Wrench on opposite end)

1 - Air Conditioning Thermometer

1 - R134A Cap Tap Valve (SnapOn ACT413 or equivalent)

1 - 1/2" Drive Air Impact Wrench

1 - 1/2" Drive Impact Deep InCh Socket Set (3/8"-1 1/4")

1 - 1/2" Drive Impact Deep Metric Socket Set (15mm-25mm)

### SIXTH QUARTER

**(SPECIAL NOTE: Many employers will require the student to use Safety-Toe boots or shoes while participating in cooperative education/internship)**

### THE FOLLOWING TOOLS ARE OPTIONAL:

1 - 3/8" Air Ratchet

1 - 3/8" Air Impact Wrench

1 - 3/8" Impact Socket Set (3/8" to 7/8")

1 - Angle Head Open End Wrench Set 3/8" to 1 1/4"

1 - 3/8" Drive Deep Socket Set (3/8" to 7/8")

1 - 3/8" Drive Metric Socket Set (8mm to 19mm)

1 - Metric Angle Head Open End Wrench Set (10mm to 19mm)

1 - Air-Conditioning R-134A Gauge/Manifold/Hose set

1 - Refractometer

**NOTE: TOOLS MAY BE PURCHASED FROM VENDORS ON CAMPUS, IF STUDENT DESIRES. THIS INCLUDES FIRST QUARTER.**

**NOTE:** Students will not be allowed to use personal tool chests or Roll-A-Way tool cabinets other than specified because of space limitations.