



DIESEL-AG EQUIPMENT SERVICE TECH

Associate of Applied Science Degree

MILFORD CAMPUS

www.southeast.edu/DieselAgEquipment



This program is located at our Milford campus. Careers in this field offer a number of responsibilities, including field work. Activities include researching and using service information with manuals or computer-based programs, using an extensive array of hand and power tools, diagnostic equipment, writing, speaking, and math skills.

Diesel-Ag Equipment Service Tech Courses:

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

Course #	Course title	Credit hrs	Optional:
AGST1120	Basic Electrical / Electronics	2.5	TRUK1101 CDL-Class A Training 3.5
AGST1121	Electrical / Electronic Circuit Diagnostics	4.0	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 for a complete list. (One class from each area below). Oral Communications 4.5 Written Communications 4.5 Science 6.0 PHYS1150 Descriptive Physics (Plus two classes from the four areas below; no two classes from the same area). Mathematics, Social Science, Humanities, and/or Computer Technology 9.0 24.0 hours
AGST1122	Electrical Charging Systems	2.5	
AGST1123	Shop Safety / Shop Tools & Precision Measuring	4.0	
AGST1124	Power Trains I	4.0	
AGST1125	Theory of Agricultural Equipment Engine Fuel Systems	3.0	
AGST1226	Theory of Engine Operation	3.0	
AGST1228	Valve Trains	3.5	
AGST1230	Diesel Engine Overhaul and Inspection	9.5	
AGST1342	Heating, Ventilation & Air Conditioning I	3.0	
AGST1344	Ag Equipment Fuel Systems	7.0	
AGST1346	Ag Equipment Hydraulics Systems	9.0	
AGST1901	Ag Equipment Cooperative Experience	10.0	
AGST2554	Ag Equipment Electricity	9.0	
AGST2556	Ag Equipment Power Trains	5.5	
AGST2558	Heating, Ventilation & Air Conditioning II	1.5	
AGST2662	Planting, Seeding, Precision Guidance & Control Systems	7.5	
AGST2663	Harvesting, Precision Guidance & Control Systems	7.0	
AGST2664	Spraying Equipment, Precision Guidance & Control Systems	3.0	
WELD1187	Welding for Ag Equipment	2.0 100.5 hours	



Graduate Earnings

Recent graduates report an average starting wage of \$15.85 per hour.

For more information contact:

Lester Breidenstine, Program Chair
 402-761-8328, 800-933-7223 ext. 8328,
 lbreiden@southeast.edu

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



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Estimated Expenses

To determine overall costs, students should plan a budget that includes room, meals, clothing, laundry, medical care, recreation and entertainment, transportation, insurance, etc.

Nebraska Resident tuition rate is \$61.50 per credit hour. Out-of-state tuition rate is \$75.50 per credit hour. Student fee is \$1.50 per credit hour. Graduation fee is \$25.

Housing is available at Beatrice and Milford campuses only.

Quarterly tuition, books and fees are dependent upon classes taken each quarter.

FIRST QUARTER

Tuition And Fees	\$1,544
Books	640
Tools	3,431
Supplies	443
Total	\$6,058

SECOND QUARTER

Tuition And Fees	\$1,512
Books	425
Tools	1,846
Total	\$3,783

THIRD QUARTER

Tuition And Fees	\$1,292
Books	425
Tools	1,130
Total	\$2,847

FOURTH QUARTER

Tuition And Fees	\$630
COOP Quarter	
Total	\$630

FIFTH QUARTER

Tuition And Fees	\$1,292
Books	400
Tools (may be purchased from optional list)	
Total	\$1,692

SIXTH QUARTER

Tuition And Fees	\$1,386
Books	550
Tools (may be purchased from optional list)	
Total	\$1,936

Total Estimate For Program \$16,946

Basic Tools for Diesel-Ag Equipment Service Technology Program

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

** Lab project kits 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
- * 1 - Highlighter
- * Welding Gloves
- * Ruler
- * 1 - Pack Colored Pencils
- * Large 3-Ring Notebook
- * Hearing Protection
- * Oxyacetylene Welding Headgear w/Face Shield #5 Lens, also clear face shield for general shop eye protection while grinding, buffing, etc.
- * Arc Welding Helmet w/#10 Lens and 2 clear plastic lenses
- * Chipping Hammer
- * 1 - Black Permanent Marker
- * 1 - Silver Permanent Marker
- ** Electrical Test Lead Kit
- ** Engine Lift Kit Materials
- * Uniforms (shirts) (3-5 minimum)

TOOLS REQUIRED TO ENTER FIRST QUARTER

- 1 - Fluke Model 87 Digital Multimeter (NO SUBSTITUTES)
- 1 - Roll-A-Way Tool Box (Top Chest Optional) (Maximum 55" long — 55" includes hang/add on boxes)
- 1 - Combination Pliers
- 1 - 6" Needle Nose Pliers
- 1 - 7" Diagonal Pliers
- 1 - Water Pump or Channel Lock Pliers (12" minimum)
- 1 - 4" Vise Grip Pliers w/Cutter
- 1 - 6" Vise Grip Longnose Pliers
- 1 - 10" Vise Grip Pliers w/cutter
- 1 - Allen Wrench Set-English
- 1 - Metric Allen Wrench Set
- 1 - 'O' Ring Tool
- 1 - Penlight
- 1 - 6" Steel Rule
- 1 - Ignition Wrench Set (7/32" - 3/8" range)
- 1 - Hacksaw w/Blades
- 1 - Rolling Head Bar (6" to 20")
- 1 - 1 lb. Ball Peen Hammer
- 1 - Compothane "Dead Blow" Hammer, 2 or 3 lb.
- 1 - .0015" - .030" Feeler Gauge Set
- 1 - Gasket Scraper
- 1 - 10" Half Round File w/Handle
- 1 - 10" Single Cut Mill Bastard File w/Handle
- 1 - 8" x 5/16" Round File w/Handle
- 1 - File Card
- 1 - Screw Extractor Set
- 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 Punch Set 3/8" to 1/2"
- 1 - Center Punch
- 1 - Flat-Nose Snap Ring Pliers - narrow tip
- 1 - Flat-Nose Snap Ring Pliers - wide tip
- 1 - 1/8" Pin Punch
- 1 - 5/32" Pin Punch
- 1 - 3/16" Pin Punch
- 1 - 1/4" Pin Punch
- 1 - 1/8" Starting Punch
- 1 - 1/4" Starting Punch
- 1 - Electrical Pliers, Wire Crimper/Cutter/Stripper
- 1 - Wire Type Spark Plug Gage - Standard Ignition
- 1 - Wire Type Spark Plug Gage - Electronic Ignition
- 1 - Short Handle Sledge Hammer - 4 lb.
- 1 - Screwdriver, Flat Tip, Pocket, .025" tip, 4 3/4" Long (Snap-On SDD2240 or equivalent)
- 1 - 3/8" Cold Chisel
- 1 - 1/2" Cold Chisel

TOOLS REQUIRED FOR SECOND QUARTER IN ADDITION TO THOSE REQUIRED FOR FIRST QUARTER:

- 1 - 3/8" Drive 5/8" Flare Nut Socket - Snap-On only FRXM201
- 1 - 3/8" Drive 3/4" Flare Nut Socket - Snap-On only FRXM241
- 1 - 3/8" Drive 17mm Flare Nut Socket - Snap-On only FRXM17
- 1 - 1/2" Torque Wrench (150 ft. lb. minimum)
- 1 - 6 Point Flare Nut Wrench 1/4" - 5/16"
- 1 - 6 Point Flare Nut Wrench 3/8" - 7/16"
- 1 - 6 Point Flare Nut Wrench 1/2" - 9/16"
- 1 - 6 Point Flare Nut Wrench 5/8" - 3/4"
- 1 - Metric Combination Wrench Set (8mm to 32mm)
- 1 - 3/8" Drive Metric Socket Set (8mm to 19mm)
- 1 - 1/2" Drive Metric Socket Set (10mm to 27mm + 30mm & 32mm)
- 1 - 1/4" & 3/8" Drive Torx Drivers (T-8 to T-55) (SnapOn 212EFTXY or equivalent)
- 1 - 3/8" Drive Torque Wrench (5ft.lbs. to 75ft.lbs.)
- 1 - Fender/Engine Cover
- 1 - 2 lb. Ball Peen Hammer or 3 lb. Machine Hammer
- 1 - 16" Pinch Bar
- 1 - 18" Pry Bar
- 1 - Set of 4 Internal/External Snap Ring Pliers. Tip Diameters: .038, .047, .070, .090
- 1 - 1/2" Drive 19mm Deep Socket-12 point
- 1 - Tire Pressure Gauge (100psi capacity)
- 1 - Twist Drill Index 1/16" to 1/2" by 64ths
- 1 - 3/8" Variable Speed/Reversible Drill (Electric or Air)
- 1 - Allen Head Socket Set (English) (3/8" Drive)
- 1 - Allen Head Socket Set (Metric) (3/8" Drive)

TOOLS REQUIRED FOR THIRD QUARTER IN ADDITION TO THOSE REQUIRED FOR FIRST AND SECOND QUARTER:

- 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 (0o to 220o)
- 1 - R 134A Can Tap Valve (SnapOn ACT413 or equivalent)
- 1 - Roll Pin Punch Set - 12 piece set (SnapOn PPR712K or equivalent)
- 1 - 1/4" & 3/8" Drive Torx Socket Set (E4 to E18) (SnapOn 210AFLEY or equivalent)
- 1 - Dial Caliper (0 to 6")
- 1 - Utility Light w/10ft. Cord (Troublelight)
- 1 - 1/4" & 3/8" Drive Torx Bit Set (T8 to T55) (SnapOn 212EFTXY or equivalent)

TOOL REQUIREMENTS FOR FOURTH-SIXTH QUARTERS ARE THE SAME AS THOSE REQUIRED FOR FIRST-THIRD QUARTERS:

(SPECIAL NOTE: Many employers will require the student to use steel toe safety 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 - 1/2" Air Impact Wrench
- 1 - 1/2" Impact Deep Socket Set (1/2" to 1 1/2")
- 1 - 1/2" Impact Socket Set (3/8" to 1 1/4")
- 1 - Angle Head Open End Wrench Set (3/8" to 1 1/4")
- 1 - Metric Angle Head Open End Wrench Set (10mm to 19mm)
- 1 - 3/8" Drive Crowfoot Open End Wrench Set (3/8" to 2")
- 1 - 3/8" Drive Metric Deep Socket Set (6mm to 19mm)
- 1 - 1/2" Drive Metric Deep Socket Set (10mm to 20mm)
- 1 - Air Hammer Set, Medium Duty (SnapOn #PHG2045CH4 or equivalent)
- 1 - Bushing Driver Set (SnapOn #A157C or equivalent)
- 1 - Slide Hammer (SnapOn #CJ250 or equivalent)
- 1 - Air-Conditioning R-134A Gauge/Manifold/Hose set
- 1 - Creeper
- 1 - 3/8" Drive Impact Swivel Socket Set (3/8" to 9/16")

NOTE: TOOLS MAY BE PURCHASED FROM VENDORS ON CAMPUS, IF STUDENTS DESIRE. THIS INCLUDES FIRST QUARTER.

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

(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!

