



# JOHN DEERE TECH

Associate of Applied Science Degree

MILFORD CAMPUS

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



*This model program was the first of its kind in the United States. It's offered jointly by John Deere and SCC in cooperation with John Deere dealers. Students in this program are required to have a sponsoring John Deere dealer and are expected to continue employment at the dealership after graduation. John Deere is a Fortune 500 company employing more than 60,000 people worldwide.*

## Overview

John Deere dealership technicians work on engines, power trains, hydraulic systems, electrical and electronics, air conditioning diagnosis and repair, as well as tillage, planting, spraying, and harvesting equipment and John Deere Satellite Mapping.

During training, students will work for two quarters at their sponsoring dealership. New students are admitted four times a year. In addition to meeting general SCC requirements, students are tested to evaluate potential for success in the John Deere Tech program. Selected applicants must secure a John Deere dealership sponsor for off-campus training.

Students are required to provide or purchase a basic tool set during the first quarter.



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**For more information contact:**

William E. Vocasek, Program Chair  
402-761-8241, 800-933-7223 ext. 8241  
bvocasek@southeast.edu

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

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# Basic Tools for John Deere Tech Program

**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 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 FOR 1ST QUARTER

- 1 - Digital Voice Recorder Recommended
- \*1 - Safety Glasses (must meet Z87 specs.)
- 1 - Service Tool Box (Maximum 4,500 cubic inch storage size)
- 1 - Combination Pliers
- 1 - 6" Needle Nose Pliers
- 1 - 7" Diagonal Pliers
- 1 - 10" Vise Grip Pliers w/cutter
- 1 - 'O' Ring Tool Picks Long and Short
- 1 - 6" Steel Rule
- 1 - Hacksaw w/blades
- 1 - 1 lb. Ball Peen Hammer
- 1 - .0015" - .030" Feeler Gauge Set
- 1 - 10" Half Round File w/handle
- 1 - 10" Single Cut Mill File w/handle
- 1 - 8" x 5/16" Round File w/handle
- 1 - File Card
- 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 - Center Punch
- 1 - Electrical Pliers, Wire Crimper/Cutter/Stripper
- \*1 - Welding Gloves
- \*1 - Oxyacetylene Welding Headgear w/Face Shield
- #5 Lens, also clear face shield for general shop eye protection while grinding, buffing, etc.
- \*1 - Arc Welding Helmet w/#10 Lens and 2 clear plastic lenses
- \*1 - Chipping Hammer w/Steel Brush
- 1 - Test Lead Set (Snap-On MT300 or equivalent)
- \*\*1 - Electrical Test Lead Kit
- \*\*1 - Engine Lift Kit Materials
- 1 - Twist Drill Index 1/16" to 1/2" by 64ths plus 5/8" bit
- 1 - Ear Protection
- 1 - Thread Pitch Gauge (English)
- 1 - Thread Pitch Gauge (Metric)
- 1 - Dial Caliper 6" (non-digital)
- 1 - 3/8" Drive Socket Set (3/8" to 7/8" including Ratchet, Long Handle, 4" & 6" Extensions, Long Flex Handle, Speed Handle & Universal Joint (12 point sockets)

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

## TOOLS REQUIRED FOR 2ND QUARTER

- \*1 - Scientific Calculator
- 1 - Roll-A-Way Tool Box (Top Chest Optional) (Maximum 55" long — 55" includes hang/add on boxes)
- 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 - 1/2" Drive 3/4" Flare Nut Socket (6 Point)
- 1 - 1/2" Drive 5/8" Flare Nut Socket (6 Point)
- 1 - Metric Allen Wrench Set (Socket option)
- 1 - 20" Rolling Head Bar
- 1 - 16" Pry Bar
- 1 - 24" Pry Bar
- 1 - 30" Pry Bar
- 1 - Tire Pressure Gauge (100 psi capacity)
- 1 - Machine Hammer (3 lb. or 4 lb.)
- 1 - 3/8" Drive Impact Flex Socket Set (7/16" to 3/4" 6 Point)
- 1 - Bearing Race Punch (MAC PB37L or equivalent)
- 1 - John Deere Starter Wrench (JDE80 or equivalent)
- 1 - Seal Puller Snap-On YA105 or equivalent)
- 1 - Telescopic Handled Mirror
- 1 - Valve Guide/Oil Passage/ Injection Nozzle Brush Set
- 1 - Water Pump or Channel Lock Pliers
- 1 - Internal/External Snap Ring Pliers Kit - reversible (not interchangeable) tips
- 1 - 4" Vise Grip Pliers w/cutter
- 1 - 6" Vise Grip Needle Nose Pliers
- 1 - Allen Wrench Set, SAE (Socket option)
- 1 - Penlight (LED recommended)
- 1 - Ignition Wrench Set (7/32" - 3/8" range)
- 1 - 16" Rolling Head Bar
- 1 - Compothane "Dead Blow" Hammer, 2 or 3 lb.
- 1 - Gasket Scraper (minimum 1" wide, short length)
- 1 - Dial Indicator w/Heavy-Duty Magnetic Base (1" Travel in 1" increments)
- 1 - Telescoping Magnet
- 1 - Air Conditioning Duct Thermometer (Infrared thermometer option)
- 1 - Brass Drift (3/4" Diameter)
- 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 - 3/8" Cold Chisel
- 1 - 1/2" Cold Chisel
- 1 - 3/4" Cold Chisel

- 1 - Air Chuck (for inflating tires)
- 1 - Combination Wrenches (1 1/16" to 1 5/16")
- 1 - Metric Combination Wrench Set (8mm to 32mm)
- 1 - 1/4" Drive Socket Set (1/4" to 1/2") including Ratchet, Short Extension, Drive Handle, & Univ. Joint (6 pt. sockets)
- 1 - 1/2" Drive Socket Set (3/8" to 1 5/16") including Long Handle Ratchet, 3" & 6" Extensions Approximately 24" Flex Handle, & Universal Joint (12 point sockets)
- 1 - 1/4" Drive Metric Socket Set 6 point (4mm to 15mm)
- 1 - 1/2" Drive Metric Socket Set (10mm to 32mm) 12 point
- 1 - 3/8" to 1/4" Adaptor
- 1 - 1/4" to 3/8" Adaptor
- 1 - 3/8" to 1/2" Adaptor
- 1 - 1/2" to 3/8" Adaptor
- 1 - 1/2" Drive Torque Wrench (250 ft. lb.)
- 1 - 3/8" Drive Torque Wrench (100 ft. lb.)
- 1 - Flat Nose Snap Ring Pliers (14" long/ 1 1/2" opening/wide jaw)
- 1 - Flat Nose Snap Ring Pliers (14" long/ 1 1/2" opening/narrow jaw)
- 1 - Pistol Grip Air Gun w/rubber tip
- 1 - Air Conditioning Service Wrench (1/4" to 3/16" square drive on one end with 1/2" to 9/16" Hex on opposite end)

## OPTIONAL TOOLS:

- 1 - 3/8" Air Impact Wrench
- 1 - 1/2" Air Impact Wrench
- 1 - Metric Angle Head Open End Wrench Set (10mm to 19mm)
- 1 - English Angle Head Open End Wrench Set (3/8" to 1 1/4")
- 1 - Impact U-Joint/Swivel - 1/2" Drive
- 1 - Roll Pin Punch Set - 12 Piece Set (Snap-On PPR712K or equivalent)
- 1 - Air Operated Right Angle Driver/Grinder (Gasket Removal)
- 1 - Air-Conditioning R-134A Gauge/Manifold/Hose set
- 1 - Air Die Grinder
- 1 - Air Cutoff Tool
- 1 - 1/4" Drive Inch-Pound Torque Wrench
- 1 - Allen Socket Set (SAE & Metric)
- 1 - Torx Socket Set (T8 to T55)
- 1 - 3/8" Drive Deep & Shallow Impact Socket Set (3/8" to 7/8")
- 1 - 1/2" Drive Deep & Shallow Impact Socket Set (1/2" to 1 1/2")
- 1 - 1/2" Drive Metric Deep & Shallow Impact Socket Set (19mm to 32mm)
- 1 - 3/8" & 1/2" Impact Extensions
- 1 - 1/2" to 3/4" Adaptor
- 1 - Tap & Die Set
- 1 - Infrared Thermometer

\* A tool set is required for successful completion of the program and required as an entry level technician. Tools may be purchased from a vendor of the individual's choosing. Vendors are available and offer students a discount (determined by each vendor). The cost of tools will vary depending on which vendor is selected. As each quarter has different requirements for tools, some quarters will exceed the estimate listed above and some quarters will be below the listed estimate.

\* May be purchased at the campus bookstore.

\*\* Purchase from campus parts store.

# John Deere Tech Courses:

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

Course #	Course title	Credit hrs
JDAT1140	John Deere Fundamentals & Safety	4.5
JDAT1142	John Deere Orientation	4.5
JDAT1146	John Deere Electrical/Electronics I	8.5
JDAT1242	John Deere Engine Repair	11.0
JDAT1244	John Deere Fuel Systems	3.0
JDAT1246	John Deere Tractor Performance	2.0
JDAT1440	John Deere Heating/Air Conditioning	3.0
JDAT1441	John Deere Tillage and Seeding Equipment	2.5
JDAT1442	John Deere Electrical/Electronics II	6.0
JDAT1443	John Deere Harvesting Equipment	6.0
JDAT1901	Dealer Cooperative Experience	10.0
JDAT1902	Web Based Training I	2.0
JDAT2541	John Deere Power Trains I	8.5
JDAT2543	John Deere Hydraulics I	8.5
JDAT2741	John Deere Power Trains II	4.5
JDAT2743	John Deere Hydraulics II	5.0
JDAT2748	John Deere Electrical/Electronics III	3.5
JDAT2750	John Deere Advance Technologies	3.0
JDAT2901	Dealer Cooperative Experience	10.0
JDAT2902	Web Based Training II	2.0
WELD1185	Diesel Truck, JDAT & JDCE Welding	1.5
		<b>109.5 hours</b>

## Optional:

TRUK1101	CDL-Class A Training	3.5
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## 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
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
<b>24.0 hours</b>	



## 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 \$65.50 per credit hour. Out-of-state tuition rate is \$79.50 per credit hour. Student fee is \$2 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.

FIRST QUARTER		FOURTH QUARTER	
Tuition And Fees	\$1,587	Tuition And Fees	\$1,485
Books	250	Books	270
*Tools	1,650	<b>Total</b>	<b>\$1,755</b>
Supplies	150		
<b>Total</b>	<b>\$3,637</b>	FIFTH QUARTER	
		Tuition And Fees	\$1,452
		Books	180
		<b>Total</b>	<b>\$1,632</b>
SECOND QUARTER		SIXTH QUARTER	
Tuition And Fees	\$1,485	Tuition And Fees	\$810
Books	275	COOP Quarter	
*Tools	5,230	<b>Total</b>	<b>\$810</b>
<b>Total</b>	<b>\$6,990</b>	SEVENTH QUARTER	
		Tuition And Fees	\$1,384
		Books	225
		<b>Total</b>	<b>\$1,609</b>
		<b>Total Estimate For Program</b>	<b>\$17,243</b>