

2018-2019

SOUTHEAST  
COMMUNITY  
COLLEGE  
NEBRASKA

# AUTOMOTIVE TECHNOLOGY

Associate of  
Applied Science  
Degree

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

LINCOLN AND MILFORD CAMPUSES



**Skilled auto technicians are in demand! Duties in this field include researching service information using manuals or computer-based programs and using an extensive array of hand tools and diagnostic equipment. You also will learn writing, speaking and math skills. Program graduates are employed in dealerships, independent shops, fleet service facilities, and owner/operator shops.**

**PROGRAM MISSION STATEMENT:** The mission of the Automotive Technology program is to prepare individuals for employment as high-quality entry-level technicians in the automotive repair field.

## Special Program Requirements:

Course offerings and prerequisite sequencing will be determined by the program's campus of origination. A grade of C or higher in all AUTT courses is needed to progress through the program.

Students are required to provide or purchase a basic tool set during the first quarter. Students also are required to wear program shirts while in class or laboratory settings. Shirts are available for purchase through the SCC Bookstore.

All instructors in this area are ASE certified in the areas they teach.

## 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

## Automotive Courses:

Course #	Course title	Credit hrs
AUTT1007	Auto Shop Safety & Repair	4.5
AUTT1103	Drive Trains	3.5
AUTT1106	Electrical Concepts	5.0
AUTT1107	HVAC I	4.0
AUTT1108	Automotive Fuel and Control Systems	7.5
AUTT1110	Basic Automotive Maintenance & Light Repair	5.0
AUTT1202	Steering & Suspension Theory	4.0
AUTT1203	Manual Transmission/Transaxle Theory	4.0
AUTT1205	Brake Systems Theory	5.0
AUTT1206	Automotive Electricity	3.0
AUTT1207	HVAC II	2.0
AUTT1212	Steering & Suspension Lab	2.5
AUTT1215	Brake Systems Lab	2.5
AUTT1217	Automotive HVAC	5.5
AUTT1221	Engine Theory	5.0
AUTT1222	Engine II	10.0
AUTT1306	Automotive Ignition Systems	1.5
AUTT1406	Automotive Electronics I	2.5
AUTT1408	Advanced Engine Performance	7.0
AUTT1506	Automotive Electronics II	4.0
AUTT2102	Automatic Transmission/Transaxle	12.5
AUTT2303	Manual Transmission/Transaxle Lab	4.0
AUTT1200	Informational Systems (M)	1.0
WELD1181	Automotive, ASEPT, ASSET, & CAP Welding	1.5
	or	
AUTT1712	Introduction to Hybrid Vehicles	1.5
WELD1176	Automotive & Motorcycle Welding	2.5
		109.5 hours

## Optional:

TRUK1101	CDL-Class A Training	3.5
AUTT1011	Introduction to Automotive Technology	3.0



## For more information contact:

Barry Smith, Program Chair – Lincoln  
402-437-2643, (800) 642-4075 ext. 2643  
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Kevin Uhler, Program Chair – Milford  
402-761-8367, (800) 933-7223 ext.8367  
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or the College Admissions Office  
Lincoln 402-437-2600, 800-642-4075 ext. 2600  
Milford 402-761-8243, 800-933-7223 ext. 8243

## Graduate Earnings

Recent graduates report an average starting wage of \$14.75 per hour.

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. 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. A0705 - AUTO (04/18)



### 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.

This program requires 133.5 quarter credits to graduate. The program is delivered over six (6) terms.

Tuition And Fees	\$1,483
Books	182
Tools and Supplies	1,025
Average Cost per Quarter	\$2,690
<b>Total Estimate For Program</b>	<b>\$16,140</b>

\* A tool set is required for successful completion of the program. Tools may be purchased from a vendor of the individual's choosing. Vendors are available on each campus and offer students a discount. The discounts are determined by each vendor. The College does not recommend nor endorse any specific brand of tools.

The student should give careful consideration when selecting tools he/she will use in his career. 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 average listed above and some quarters will be below the listed average.

The maximum amount for tools should not exceed \$5,900.

\*\* Supplies are determined by each term and are typically available through the campus bookstore or the parts store.

Students are required to wear program uniform shirts while in class or lab.

## AUTOMOTIVE APPROVED TOOL LIST

The following tool list includes the basic tools a student will be required to have to successfully complete the Automotive Technology program. The student should discuss with their advisor the timeline for purchasing specific tools and suggested optional tools.

The College does not recommend, nor endorse, any specific brand of tools. The student should give careful consideration when selecting tools he/she will use in their career.

### TOOL STORAGE

- 42" Roll-Away (maximum size)
- \*Hand carry tool box w/padlock (max 9"W x12"H x 20"L)

### WRENCHES

- 1/4"- 1 1/4" standard combination 12 pt.
- 6 mm - 19 mm standard combination 12 pt.
- Adjustable wrench - 12"
- Flare Wrench Set 3/8-11/16 & 9 mm - 18 mm

### 1/4 DRIVE

- 3/16" - 9/16" standard 6 pt. and deep 6 pt.
- 5mm -14mm standard 6 pt. and deep 6 pt.
- Extensions (3) 2", 4", 6" or equiv
- Ratchet
- Universal joint
- Drive handle

### 3/8 DRIVE

- 5/16- 13/16 standard 6 pt. and deep 6 pt.
- 6-19mm standard 6 pt. and deep 6pt.
- Spark plug 5/8 and 13/16
- Extensions (4) 1"-12"
- Torx T10-T60
- Flex head ratchet
- 3/8" Air ratchet
- 3/8"- 3/4" flex impact
- 10 mm -19 mm flex impact
- Universal joint
- 3/8" drive extension - 36"
- 3/8 Torque wrench 15-100 ft/lb or equivalent

### 1/2 DRIVE

- 3/8" - 1 1/4" standard 12 pt.
- 10 mm - 24 mm standard 12 pt.
- 7/16"- 1 1/4" deep impact 6 pt.
- 10 mm - 24mm deep impact 6 pt.
- Ratchet (15" Long)
- Breaker bar 15" - 24" min
- Extensions (3) 3", 5", 10" or equiv
- 1/2" Air impact
- 1/2" Torque wrench 40 - 250 ft/lb
- \*\*30, 32, 34 & 36mm deep impact sockets

### SCREWDRIVERS

- Standard (5) 1/8", 3/16", 1/4", 5/16", 3/8"
- Phillips (3) 1, 2, 3
- Pocket screwdriver
- 1 set Torx Screwdrivers (TX10-TX30)

### PLIERS

- Combination 6" slip-joint combination
- Diagonal cut 7"
- Needle nose 6"
- Wire crimper/cutter/stripper
- Vise-Grip (3) 5" curved, 10" curved, 6" long nose
- Battery pliers
- Fixed tip Snap ring convertible pliers 6" & 8" straight tip (.038", .045" & .070")
- Lock ring pliers
- Spark plug boot
- Adjustable Joint 10" (min.)

### HAMMERS

- Ball peen (2) 16 oz, 32 oz
- Dead Blow (24 oz to 26 oz)

### PUNCHES/CHISELS/FILES/SAW

- 12" Hacksaw w/blades
- Punches & Chisels set (minimum 12 piece - including center punch)
- Brass drift 6" minimum
- Half round nose cape chisel
- Files (3) 10" flat, 8" round, 6" Tri
- File card
- File handles

### ELECTRICAL

- Fluke 87 or 88 Multi-meter (NO EXCEPTIONS)
- 12v Test light
- Battery Terminal cleaner
- Adjustable Spark Tester
- Wire Terminal Tool - (for Computer Control Terminal)
- Test lead project kit (Available at SCC Parts Department)

### BRAKES

- Brake adjusting tool
- Hold-down Spring (2) large and small
- Brake spring tool

### MEASURING INSTRUMENTS

- Feeler gauges (2) Straight and angled .0015-.025 w/metric equivalent
- \*Dial indicator w/clamp on base, 1" travel
- 6" steel ruler w/ std. and metric
- Thread pitch gauge std. & metric
- 0-6" caliper



### MISCELLANEOUS

- Safety glasses (min. Z87 rated)
- Program Uniforms shirts (3-5 min.) Available at SCC Bookstore
- Ear protection
- Calculator
- Fender covers (1 set)
- Adapters (4) 1/4-3/8, 3/8-1/4, 3/8-1/2, 1/2-3/8
- Stethoscope
- 12' Tape measure
- 16" Rolling head bar
- Pry bar set (12" & 24" min)
- Gasket scraper
- Pick set (4 piece)
- Magnetic pick up tool (telescoping)
- Inspection mirror
- Wire brush - 10" minimum
- Pen/Mini-Mag light w/batteries
- Oil filter Pliers (Slip Joint)
- Air chuck
- Tire gauge
- \*\*Antifreeze Tester
- Spark plug gapper .040 - .080" -wire type
- Valve core tool
- Rubber tip air nozzle
- A/C Thermometer
- Vacuum plug set
- \*\* Lip seal installer
- Pair welding gloves
- Hand held vacuum pump
- Basic A/C & Fuel line disconnect tools
- Allen wrenches (2sets) .050" -3/8" & 4 mm -12 mm
- \*A/C manifold gauge set R134a
- \*Freon Can tap
- \*Aluminum block project kit
- \*Electrical wire project kit

\*Required on Milford Campus only  
\*\* Required on Lincoln Campus only

