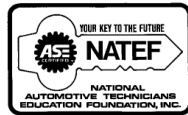


# AUTOMOTIVE

All Automotive programs are NATEF certified.



## *Special Certificates*

- *Automotive Chassis Specialist*
- *Automotive Electrical Systems Specialist*
- *Automotive General*
- *Automotive Powertrain Specialist*

## *Certificates*

- *Automotive Technology Auto Body Specialist*
- *Automotive Technology Diesel Service Specialist*
- *Automotive Technology Master Certification*

## *Associate in Applied Science*

- *Automotive Technology*

## *Partnership Programs*

- *Davenport University*
- *Ferris State University*
- *Franklin University*

See information on our partnership programs on the web at

[www.kirtland.edu/partnerships/auto.htm](http://www.kirtland.edu/partnerships/auto.htm)

### **Foundation**

Kirtland Community College recognizes the importance of students possessing basic academic skills in English, reading, and mathematics in order to successfully complete college-level courses. Therefore, all entry-level students are required to demonstrate their proficiency in basic academic skills. In the certificate programs there are no English, reading, or mathematic requirements, however, these courses are the foundation for success in all programs. The student's advisor will indicate which of the following courses need to be taken based on ACT scores or COMPASS placement testing results. It is highly recommended that students take these courses during the first semester in order to prepare for the road ahead, as well as possibly satisfying prerequisites needed for more advanced courses. Specific courses needed may be tracked below. *Students must plan additional time to complete their program requirements if placement results require them to begin with DEV courses.*

- ENG-10000 Writing Lab (if required)
- English: \_\_\_\_\_

- Mathematics: \_\_\_\_\_
- Reading: \_\_\_\_\_

**For more information, please contact the Automotive Department.**

Richard Bonk

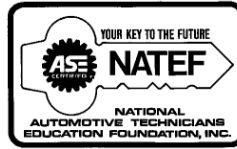
989-275-5000, extension 329

# AUTOMOTIVE TECHNOLOGY MASTER CERTIFICATION

Certificate of Completion (CAUT1)

Minimum Credits: 53

Contact Hours: 75



## Introduction

Kirtland's Automotive Technology Master Certification program is designed to provide instruction in manipulative skills and technical knowledge required for employment as an automotive technician. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in all eight of the following areas: 1) engine repair, 2) automatic transmission and transaxle, 3) manual drivetrain, 4) suspension and steering, 5) brakes, 6) electrical/electronic systems, 7) heating and air conditioning, and 8) engine performance. Students wanting to continue in this program may pursue the Associate in Applied Science – Automotive Technology.

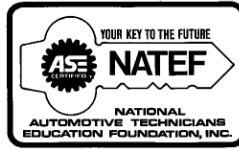
Course	Title	Credits
<b>Semester I--Fall</b>		
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-17703	Automotive Braking Systems	4
WLD-10120-10133	Welding & Fabrication Level I	4
<b>Semester II - Winter</b>		
AUT-16100	Engine Fund & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16801	Automotive Electrical Systems	4
AUT-20402	Intro Auto Service Management	2
or AUT-20404	OR Auto Service Management	3
<b>Semester III - Fall</b>		
AUT-21800	Automatic Transmissions	4
AUT-26500	Steering, Suspension & Alignment	4
AUT-26601	Engine Performance & Diagnostics	4
AUT-27000	Heating & Air Conditioning	3
<b>Semester IV - Winter</b>		
AUT-23104	Automotive Internship	5
AUT-27900	Manual Transmission/ Drivelines/ Axles	4

# AUTOMOTIVE TECHNOLOGY

Associate in Applied Science (DAUT0)

Minimum Credits: 78

Contact Hours: 100-105



## Introduction

Kirtland's program in Automotive Technology is designed to provide instruction in manipulative skills, technical knowledge and related trade information. Students are given the opportunity to prepare for employment in the automotive industry as certified technicians, service salesmen, or service managers.

This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in all eight of the following areas: 1) engine repair, 2) automatic transmission and transaxle, 3) manual drivetrain, 4) suspension and steering, 5) brakes, 6) electrical/electronic systems, 7) heating and air conditioning, and 8) engine performance. It is recommended that students make an appointment for an interview with an automotive advisor prior to entering the program.

Any student who wishes to pursue a Bachelor's degree should contact his/her advisor during the first semester at Kirtland Community College for guidance. Transfer agreements and/or Articulation agreements are in place with Davenport University and Ferris State University.

Course	Title	Credits
<b>Semester I--Fall</b>		
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-17703	Automotive Braking Systems	4
WLD-10120-10133	Welding & Fabrication Level I	4
<b>Semester II - Winter</b>		
AUT-16100	Engine Fund & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16801	Automotive Electrical Systems	4
AUT-20404	Adv. Auto Service Management	3
or AUT-20402	OR Intro to Auto Service	2
and AUT-20403	AND Advanced Auto Service	1
<b>Semester III - Fall</b>		
AUT-21800	Automatic Transmissions	4
AUT-26500	Steering, Suspension & Alignment	4
AUT-26601	Engine Performance & Diagnostics	4
AUT-27000	Heating & Air Conditioning	3
<b>Semester IV - Winter</b>		
AUT-23104	Automotive Internship	5
AUT-27900	Manual Transmission/ Drivelines/ Axles	4

## The following courses are also required for this degree:

ENG-10000	Writing lab, if needed	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
MTH-12000	Intermediate Algebra or higher	3-4
PHY-10501 and PHY-10502	Physical Science with lab	4
POL-10100	Introduction to American Government	3
SPE-10500 or SPE-11400	Fundamentals of Speech OR Intro Interpersonal/Public Comm.	3
	Any humanities elective	2-4
	Any Social Science elective	3-4

# AUTOMOTIVE TECHNOLOGY AUTO BODY SPECIALIST

Certificate of Completion (CABS0)

Minimum Credits: 46

Contact Hours: 60



## Introduction

Kirtland's Automotive Technology Auto Body Specialist program is designed to provide instruction in manipulative skills and technical knowledge required for employment as an entry level auto body specialist. Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in the following areas: 1) electrical and electronic systems, 2) automotive braking systems, 3) heating and air conditioning, 4) automatic transmissions, 5) manual transmissions, drivelines and axles, 6) steering, suspension and alignment, and 7) two semesters of auto body internships. Students wanting to continue in this program may pursue the Associate in Applied Science—Automotive Technology.

Course	Title	Credits
<b>Semester I - Fall</b>		
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-17703	Automotive Braking Systems	4
WLD-10120-10133	Welding & Fabrication Level I	4
<b>Semester II - Winter</b>		
AUT-16801	Automotive Electrical Systems	4
AUT-20402	Intro to Auto Service Management	2
<b>Semester III - Fall</b>		
AUT-21800	Automatic Transmissions	4
AUT-26500	Steering, Suspension & Alignment	4
AUT-27000	Heating & Air Conditioning	3
AUT-19100	Auto Body Internship—semester 1	5
<b>Semester IV - Winter</b>		
AUT-27900	Manual Transmission/Drivelines/Axles	4
AUT-19200	Automotive Internship—semester 2	5

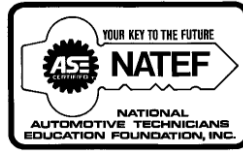


# AUTOMOTIVE TECHNOLOGY DIESEL SERVICE SPECIALIST

Certificate of Completion (CDSS0)

Minimum Credits: 41

Contact Hours: 56



## Introduction

Kirtland's Automotive Technology Diesel Service Specialist program is designed to provide instruction in manipulative skills and technical knowledge required for employment as a diesel service specialist. Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Graduates will demonstrate competence in the following areas: 1) electrical & electronic systems, 2) fundamentals of diesel technology, diesel engine performance & diagnostics, 6) welding, and 7) one semester of automotive internship. Students wanting to continue in this program may pursue the Associate in Applied Science--Automotive Technology.

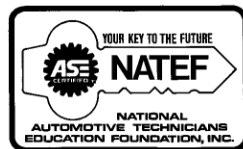
Course	Title	Credits
<b>Semester I - Fall</b>		
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
WLD-10120-10133	Welding & Fabrication Level I	4
<b>Semester II - Winter</b>		
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16801	Automotive Electrical Systems	4
AUT-20402	Intro to Auto Service Management	2
<b>Semester III - Fall</b>		
AUT-27000	Heating & Air Conditioning	3
AUT-17200	Intro to Diesel Service	4
<b>Semester IV - Winter</b>		
AUT-26700	Diesel Engine Performance & Diag	4
AUT-23104	Automotive Internship	5

# AUTOMOTIVE CHASSIS SPECIALIST

Special Certificate (SAUT0)

Minimum Credits: 22

Contact Hours: 31



## Introduction

Kirtland's Automotive Chassis Specialist certificate program is designed to provide the student with the necessary skills to gain employment in the automotive industry. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests. Students will demonstrate competence in suspension, steering, and brakes. Students wanting to continue in this program may pursue the Certificate - Automotive Technology Master Certification or the Associate in Applied Science - Automotive Technology.

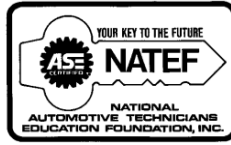
Course	Title	Credits
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16302	Automotive Fundamentals	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23101	Auto Service Area - Chassis	4
AUT-26500	Steering, Suspension & Alignment	4

# AUTOMOTIVE ELECTRICAL SYSTEMS SPECIALIST

Special Certificate (SAUT1)

**Minimum Credits: 25**

**Contact Hours: 35**



**Introduction**

Kirtland's Automotive Electrical Systems Specialist certificate is designed to provide the student with the necessary skills and knowledge to gain employment in the automotive electrical field. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests for certification in the following: 1) electricity/electronics, and 2) engine performance. Students wanting to continue in this program may pursue the Certificate – Automotive Technology Master Certification or the Associate in Applied Science – Automotive Technology.

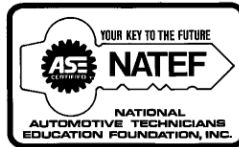
Course	Title	Credits
AUT-16201	Fuel Systems & Emission Controls	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23103	Auto Service Area – Electrical	4
AUT-26601	Engine Performance & Diagnostics	4

# AUTOMOTIVE GENERAL

Special Certificate (SAUT2)

**Minimum Credits: 15**

**Contact Hours: 18-22**



**Introduction**

Kirtland's Automotive General certificate is designed to introduce the student to automotive technology. Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests for certification in two areas of repair. Areas of instruction will include automotive fundamentals and two automotive electives, as well as a section of the service area course. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Students wanting to continue in this program may pursue the Certificate – Automotive Technology Master Certification or the Associate in Applied Science – Automotive Technology.

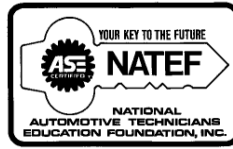
Course	Title	Credits
AUT-16302	Automotive Fundamentals	4
AUT-23104	Automotive Internship	5
<b>Choose at least six credits from below:</b>		
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-21800	Automatic Transmissions	4
AUT-26500	Steering, Suspension & Alignment	4
AUT-27000	Heating & Air Conditioning	3
AUT-27900	Manual Transmissions/Drivelines/Axles	4

# AUTOMOTIVE POWERTRAIN SPECIALIST

Special Certificate (SAUT3)

Minimum Credits: 22

Contact Hours: 30



## Introduction

Kirtland's Automotive Powertrain Specialist certificate is designed to provide the student with the necessary skills to gain entry-level employment in the automotive industry. This program is certified by the National Automotive Technicians Education Foundation (NATEF). Graduates of this program will be prepared for the Michigan Bureau of Automotive Regulation Mechanic Certification and the National Institute for Automotive Service Excellence (ASE) Technician Certification tests for certification in the following: 1) brakes, and 2) manual drivetrain and axles. Students wanting to continue in this program may pursue the Certificate – Automotive Technology Master Certification or the Associate in Applied Science – Automotive Technology.

Course	Title	Credits
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16302	Automotive Fundamentals	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23102	Auto Service Area - Powertrain	4
AUT-27900	Manual Transmission/ Drivelines/Axles	4

# AUTOMOTIVE DEGREE PARTNERSHIPS

## College & University Contact Information:

### Davenport University

Karen Aune, [karen.aune@davenport.edu](mailto:karen.aune@davenport.edu)  
989-705-3720

### Ferris State University

Shari Chamberlain, [chambers@ferris.edu](mailto:chambers@ferris.edu)  
1-800-4-FERRIS  
OR Greg Key, Automotive Department Chair, College of  
Technology  
[keyg@ferris.edu](mailto:keyg@ferris.edu) or 231-581-2655

### Franklin University

Thom Leiter, [leitert@franklin.edu](mailto:leitert@franklin.edu)  
1-888-341-6237, ext. 6057

### Kirtland Community College

Richard Bonk, [bonks@kirtland.edu](mailto:bonks@kirtland.edu)  
989-275-5000, ext. 329  
Don Dyer, [dverd@kirtland.edu](mailto:dverd@kirtland.edu)  
989-275-5000, ext. 231

See information on our partnership programs on the web at  
[www.kirtland.edu/partnerships/auto.htm](http://www.kirtland.edu/partnerships/auto.htm)