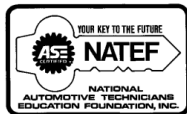


AUTOMOTIVE

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*
- *Automotive Technology Management*

Partnership Programs

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

See information on our partnership programs on the web at

<http://www.kirtland.edu/students/transferfrom/>

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, as 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 demonstrate the need to begin with preparatory courses (courses numbered less than 10000).*

ENG-10000 Writing Lab (if required)
 English: _____

Mathematics: _____
 Reading: _____

For more information, please contact the Automotive Department.

Richard Bonk

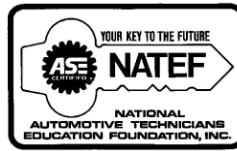
989-275-5000, extension 329

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) gasoline & Diesel engine performance. Students wanting to continue in this program may pursue the Associate in Applied Science – Automotive Technology.

Course	Title	Credits
AUT-16100	Engine Fund & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-21800	Automatic Transmissions	4
AUT-23104	Automotive Internship	5
AUT-26500	Steering, Suspension & Alignment	4
AUT-26601	Gas Engine Performance & Diagnostics	4
AUT-26700	Diesel Engine Performance & Diagnostic	4
AUT-27000	Heating & Air Conditioning	3
AUT-27900	Manual Transmission/ Drivelines/ Axles	4

Suggested sequence of courses:

Semester I (Fall)

AUT-16302—Automotive Fundamentals
 AUT-16401—Basic Electricity
 AUT-17703—Automotive Braking Systems

Semester III (Fall)

AUT-21800—Automatic Transmissions
 AUT-26500—Steering, Suspension & Alignment
 AUT-26601—Gas Engine Performance & Diagnostics
 AUT-27000—Heating & Air Conditioning

Semester II (Winter)

AUT-16100—Engine Fundamentals & Overhaul
 AUT-16201—Fuel Systems & Emission Control
 AUT-16801—Automotive Electrical Systems
 AUT-20402—Intro Auto Service Management

Semester IV (Winter)

AUT-23104—Automotive Internship
 AUT-26700—Diesel Engine Performance & Diagnostic
 AUT-27900—Manual Transmissions/Drivelines/Axles

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

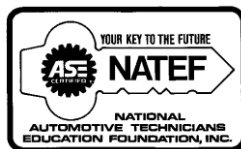


AUTOMOTIVE TECHNOLOGY

Associate in Applied Science (DAUT0)

Minimum Credits: 73

Contact Hours: 92-99



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
AUT-16100	Engine Fund & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-21800	Automatic Transmissions	4
AUT-23104	Automotive Internship	5
AUT-26500	Steering, Suspension & Alignment	4
AUT-26601	Gas Engine Performance & Diagnostics	4
AUT-27000	Heating & Air Conditioning	3
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

Suggested sequence of automotive courses. See your advisor for assistance in sequencing and scheduling general education courses:

Semester I (Fall)

AUT-16302—Automotive Fundamentals
AUT-16401—Basic Electricity
AUT-17703—Automotive Braking Systems

Semester III (Fall)

AUT-21800—Automatic Transmissions
AUT-26500—Steering, Suspension & Alignment
AUT-26601—Gas Engine Performance & Diagnostics
AUT-27000—Heating & Air Conditioning

Semester II (Winter)

AUT-16100—Engine Fundamentals & Overhaul
AUT-16201—Fuel Systems & Emission Control
AUT-16801—Automotive Electrical Systems
AUT-20402—Intro Auto Service Management

Semester IV (Winter)

AUT-23104—Automotive Internship
AUT-27900—Manual Transmissions/Drivelines/Axles

AUTOMOTIVE TECHNOLOGY MANAGEMENT

Associate in Applied Science (DATM0)

Minimum Credits: 72

Contact Hours: 80-83

Introduction

The Automotive Technology Management degree is specifically designed for students who want to combine their automotive skills with business courses in order to work in and/or manage a small repair business. It will also transfer smoothly to Northwood University in order to complete a Bachelor of Business Administration degree in Automotive Marketing & Management or in Automotive Aftermarket Management--degrees which provide outstanding employment opportunities in automotive supply chain management, aftermarket field sales management, aftermarket manufacturing management, or automotive wholesale/retail management. This degree meets the MACRAO transfer agreement guidelines for transfer.*

General Education Requirements--37 credits

Course	Title	Credits
CIS-10500	Intro to Computers	3
ECO-20100	Principles of Economics—MACRO	3
ECO-20200	Principles of Economics—MICRO	3
ENG-10000	Writing Lab (if required)	0-1
ENG-10303	English Composition I w/Computers	3
ENG-10403	English Composition II w/Computers	3
HIS-Elective	Any History	3
MTH-20600	Application in Statistics	4
PHL-21000	Intro to Ethics	3
POL-10100	Intro to American Government	3
SPE-10500 Or SPE-11400	Fundamentals of Speech Or Intro to Interpersonal & Public Communication	3
Humanities	Humanities elective from Art, Music, Theatre, Languages or Literature	2-4
Science with lab	Any Science course with a lab	4-5

Business Core—20 credits

Course	Title	Credits
ACC-12100	Accounting Principles I	4
ACC-12200	Accounting Principles II	4
BUS-21000	Principles of Management	3
BUS-21500	Legal Environment of Business	3
BUS-24000	Financial Management	3
MKT-20000	Principles of Marketing	3

Automotive Technology, 15 credits

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

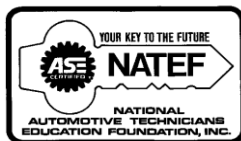
*Note: The MACRAO Transfer agreement requires 8 hours in math and science courses, 8 hours in humanities, 8 hours in social sciences and 6 in English composition. Students who transfer courses from institutions which offer these credits for fewer hours than Kirtland should take care to meet the minimum standards for the MACRAO transfer agreement.

AUTOMOTIVE TECHNOLOGY AUTO BODY SPECIALIST

Certificate of Completion (CABS0)

Minimum Credits: 42

Contact Hours: 55



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
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	Automotive Braking Systems	4
AUT-19100	Auto Body Internship—semester 1	5
AUT-19200	Automotive Internship—semester 2	5
AUT-20402	Intro to Auto Service Management	2
AUT-21800	Automatic Transmissions	4
AUT-26500	Steering, Suspension & Alignment	4
AUT-27000	Heating & Air Conditioning	3
AUT-27900	Manual Transmission/Drivelines/Axles	4

Suggested sequence of courses:

Semester I (Fall)

AUT-16302—Automotive Fundamentals
 AUT-16401—Basic Electricity
 AUT-17703—Automotive Braking Systems

Semester III (Fall)

AUT-19100—Auto Body Internship-Semester 1
 AUT-21800—Automatic Transmissions
 AUT-26500—Steering, Suspension & Alignment
 AUT-27000—Heating & Air Conditioning

Semester II (Winter)

AUT-16801—Automotive Electrical Systems
 AUT-20402—Intro Auto Service Management

Semester IV (Winter)

AUT-19200—Automotive Internship-Semester 2
 AUT-27900—Manual Transmissions/Drivelines/Axles

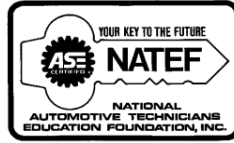
For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

AUTOMOTIVE TECHNOLOGY DIESEL SERVICE SPECIALIST

Certificate of Completion (CDSS0)

Minimum Credits: 33

Contact Hours: 44



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
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	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-23104	Automotive Internship	5
AUT-26700	Diesel Engine Performance & Diagnostic	4
AUT-27000	Heating & Air Conditioning	3

Suggested sequence of courses:

Semester I (Fall)

AUT-16302—Automotive Fundamentals
AUT-16401—Basic Electricity

Semester III (Fall)

AUT-27000—Heating & Air Conditioning

Semester II (Winter)

AUT-16100—Engine Fundamentals & Overhaul
AUT-16201—Fuel Systems & Emission Control
AUT-16801—Automotive Electrical Systems
AUT-20402—Intro Auto Service Management

Semester IV (Winter)

AUT-26700—Diesel Engine Performance & Diagnostic
AUT-23104—Automotive Internship

For assistance with course selection, sequencing and arranging your schedule, please consult with your advisor.

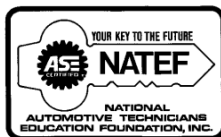


AUTOMOTIVE CHASSIS SPECIALIST

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.

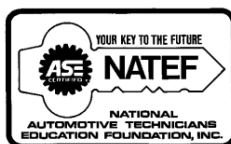
Course	Title	Credits
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16302	Automotive Fundamentals	4
AUT-17703	Automotive Braking Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23101	Auto Service Area – Chassis	4
AUT-26500	Steering, Suspension & Alignment	4

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.

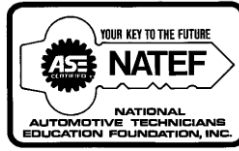
Course	Title	Credits
AUT-16201	Fuel Systems & Emission Controls	4
AUT-16302	Automotive Fundamentals	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-20402	Intro to Auto Service Management	2
AUT-23103	Auto Service Area – Electrical	4
AUT-26601	Engine Performance & Diagnostics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

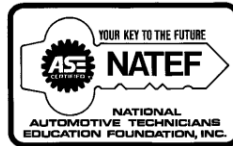
Course	Title	Credits
AUT-16302	Automotive Fundamentals	4
AUT-23104	Automotive Internship	5
Choose at least six credits from below:		
AUT-16100	Engine Fundamentals & Overhaul	4
AUT-16201	Fuel Systems & Emission Control	4
AUT-16401	Basic Electricity	3
AUT-16801	Automotive Electrical Systems	4
AUT-17703	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: 31



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