

# TRANSPORTATION

## AUTOMOTIVE TECHNICIAN

Delivery: Daytime Classes  
 Start: Fall or Spring Semester, Full-Time  
 Location: Rosemount Campus

### Outcomes

Automotive Technician A.A.S. Degree . . . . .	72 cr.
Automotive Technician Diploma . . . . .	65 cr.
Driveability Certificate . . . . .	18 cr.
Engines & Transmission Certificate . . . . .	18 cr.
Electrical, Electronics, and HVAC Certificate . . . . .	18 cr.
Brakes, Suspension and Driveline Certificate . . . . .	18 cr.

### Major Description

As skilled professionals, automotive technicians accurately diagnose mechanical problems related to engine, transmission, fuel injection, suspension and electrical systems. Students learn to maintain and repair engine, chassis, drive train, front-wheel drive, fuel injection, and electrical and emission systems. Instruction involves classroom theory, demonstrations, computer applications and hands-on car repair.

### Work Environment

Automotive technicians land jobs at dealerships, independent shops and specialty shops. They generally work indoors with good ventilation and lighting as well as strong safety precautions.

### Potential Job Titles

- Automotive Technician
- Automobile Service Advisor
- Automotive Repair Technician
- Automotive Engineer

### Salary Data

- Average Wage: \$20.35/hour
- Top Earners: \$29.37/hour

### AUTOMOTIVE TECHNICIAN - A.A.S. DEGREE

*This is a sample course sequence.  
 Please contact your program advisor regarding your academic plans.*

#### First Year - First Semester

AUTM2100	Basic Electricity	1
AUTM2110	Automotive Engine Electrical Systems	3
AUTM2115	Automotive Body Electrical Systems	3
AUTM2136	Heating, Ventilation and Air Conditioning	3
AUTM2141	Advanced Automotive Electronic Systems	5
SPEE1020	Interpersonal Communication	3
<b>Total Credits</b>		<b>18</b>

#### First Year - Second Semester

AUTM2125	Engine Theory and Operation	4
AUTM2215	Automatic Transmission/Transaxle Theory and Operation	4
AUTM2225	Advanced Engine and Transmission Diagnosis and Repair	6
ENGL1150	Composition I	3
<b>Total Credits</b>		<b>17</b>

#### Second Year - First Semester

AUTM2315	Ignition System Operation, Diagnosis and Repair	3
AUTM2322	Fuel System Operation Diagnosis and Repair	3
AUTM2325	Computer Systems Op. Diagnosis and Repair	3
AUTM2330	Advanced Driveability	5
	General Education (MnTC Goal 3 or 4)	3
	General Education Elective**	3
<b>Total Credits</b>		<b>20</b>

#### Second Year - Second Semester

AUTM2011	Suspensions, Steering and Alignment Systems	3
AUTM2025	Brakes	3
AUTM2032	Manual Transaxle, Clutches, Transfer Cases and Differentials	3
AUTM2205	Advanced Driveline and Chassis Systems	5
	General Education Elective**	3
<b>Total Credits</b>		<b>17</b>

**TOTAL PROGRAM REQUIREMENTS 72**

\*\* Select General Education electives from any MnTC goal area.

## AUTOMOTIVE TECHNICIAN - DIPLOMA

*This is a sample course sequence.  
Please contact your program advisor regarding your academic plans.*

### First Year - First Semester

AUTM2100	Basic Electricity	1
AUTM2110	Automotive Engine Electrical Systems	3
AUTM2115	Automotive Body Electrical Systems	3
AUTM2136	Heating, Ventilation and Air Conditioning	3
AUTM2141	Advanced Automotive Electronic Systems	5
SPEE1020	Interpersonal Communication	3
<b>Total Credits</b>		<b>18</b>

### First Year - Second Semester

AUTM2125	Engine Theory and Operation	4
AUTM2215	Automatic Transmission/Transaxle Theory and Operation	4
AUTM2225	Advanced Engine and Transmission Diagnosis and Repair	6
ENGL1150	Composition I	3
<b>Total Credits</b>		<b>17</b>

### Second Year - First Semester

AUTM2315	Ignition System Operation, Diagnosis and Repair	3
AUTM2322	Fuel System Operation Diagnosis and Repair	3
AUTM2325	Computer Systems Operation Diagnosis and Repair	3
AUTM2330	Advanced Driveability General Education Elective**	5 3
<b>Total Credits</b>		<b>17</b>

### Second Year - Second Semester

AUTM2011	Suspensions, Steering and Alignment Systems	3
AUTM2025	Brakes	3
AUTM2032	Manual Transaxle, Clutches, Transfer Cases and Differentials	3
AUTM2205	Advanced Driveline and Chassis Systems	5
<b>Total Credits</b>		<b>14</b>
<b>TOTAL PROGRAM REQUIREMENTS</b>		<b>66</b>

*\*\* Select General Education electives from any MnTC goal area.*

## DRIVEABILITY - CERTIFICATE

*This is a sample course sequence.  
Please contact your program advisor regarding your academic plans.*

AUTM2100	Basic Electricity	1
AUTM2322	Fuel System Operation Diagnosis and Repair	3
AUTM2315	Ignition System Operation, Diagnosis and Repair	3
AUTM2325	Computer Systems Operation Diagnosis and Repair	3
AUTM2330	Advanced Driveability General Education Elective**	5 3
<b>Total Credits</b>		<b>18</b>
<b>TOTAL PROGRAM REQUIREMENTS</b>		<b>18</b>

*\*\* Select General Education electives from any MnTC goal area.*

## ENGINES & TRANSMISSION - CERTIFICATE

*This is a sample course sequence.  
Please contact your program advisor regarding your academic plans.*

AUTM2100	Basic Electricity	1
AUTM2125	Engine Theory and Operation	4
AUTM2215	Automatic Transmission/Transaxle Theory and Operation	4
AUTM2225	Advanced Engine and Transmission Diagnosis and Repair General Education Elective**	6 3
<b>Total Credits</b>		<b>18</b>
<b>TOTAL PROGRAM REQUIREMENTS</b>		<b>18</b>

*\*\* Select General Education electives from any MnTC goal area.*



**DAKOTA COUNTY**  
**TECHNICAL COLLEGE**

**Real Education. Real Results.**

2014-2015 CATALOG

## ELECTRICAL, ELECTRONICS, & HVAC - CERTIFICATE

*This is a sample course sequence.  
Please contact your program advisor regarding your academic plans.*

AUTM2100	Basic Electricity	1
AUTM2110	Automotive Engine Electrical Systems	3
AUTM2115	Automotive Body Electrical Systems	3
AUTM2136	Heating, Ventilation, and Air Conditioning	3
AUTM2141	Advanced Automotive Electronic Systems	5
	General Education Elective**	3
<b>Total Credits</b>		<b>18</b>
<b>TOTAL PROGRAM REQUIREMENTS</b>		<b>18</b>

*\*\* Select General Education electives from any MnTC goal area.*

## BRAKES, SUSPENSION AND DRIVELINE - CERTIFICATE

*This is a sample course sequence.  
Please contact your program advisor regarding your academic plans.*

AUTM2100	Basic Electricity	1
AUTM2011	Suspension, Steering & Alignment	3
AUTM2025	Brakes	3
AUTM2032	Manual Transmission and Driveline	3
AUTM2205	Advanced Driveline and Chassis System	5
	General Education Elective**	3
<b>Total Credits</b>		<b>18</b>
<b>TOTAL PROGRAM REQUIREMENTS</b>		<b>18</b>

*\*\* Select General Education electives from any MnTC goal area.*



**DAKOTA COUNTY**  
**TECHNICAL COLLEGE**

**Real Education. Real Results.**

2014-2015 CATALOG



**DAKOTA COUNTY**  
**TECHNICAL COLLEGE**

2014-2015 CATALOG

**Real Education. Real Results.**



# TRANSPORTATION

## AUTOMOTIVE MAINTENANCE & LIGHT REPAIR

*In partnership with Goodwill Easter Seals and Adult Basic Education (ABE) through a FastTrac Grant.*

Location: Rosemount Campus

### Outcomes

Automotive Maintenance and Light Repair Certificate. ... 18 cr.

### Major Description

This program is designed to introduce students to the automotive industry and provide opportunities to obtain the entry level fundamental knowledge, skills, training and credentials needed for employment and advancement in the automotive and transportation career pathways. This certificate follows the standards defined by the National Automotive Technician Education Foundation (NATEF) which ensures all training meets the highest standards.

Students who graduate from this program will be able to work for independent repair facilities and dealerships doing maintenance and light repairs. Most of the 18 credits received in the AMLR program are transferable to the Automotive Technician AAS Degree offered at DCTC and the remaining credits may also be transferable to DCTC or other MnSCU institutions through a prior learning credit assessment.

### Work Environment

Automotive technicians find jobs at dealerships, independent shops and specialty shops. They generally work indoors with good ventilation and lighting as well as strong safety precautions.

### Potential Job Titles

Lube Technician  
General Service Technician (GST)  
Maintenance and Light Repair Technician  
Light-Duty Maintenance Technician

*Pending MnSCU approval*

### AUTOMOTIVE MAINTENANCE & LIGHT REPAIR - CERTIFICATE

*Please contact your program advisor regarding your academic plans.*

AUTM2005	Introduction to Maintenance & Light Repair	1
AUTM2011	Suspensions, Steering and Alignment Systems	3
AUTM2025	Brakes	3
AUTM2100	Basic Electricity	1
AUTM2110	Automotive Engine Electrical Systems	3
AUTM2015	Drive Train, Axles, and Automatic & Manual Transmissions	2
AUTM2035	Engine Repair, Heating, & Air Conditioning	2
AUTM2045	Engine Performance	2
AUTM2970	Internship	1
Total Credits		18

