



## PURPOSE OF PROGRAM

Automotive technology is a two-year program designed to provide broad fundamental training in all aspects of automotive service and repair, employing up-to-date methods and materials for today's technology. In the first semester, students concentrate on the under-car chassis, including wheels and tires, wheel balancing techniques, brakes, front and rear suspension, steering systems, computerized wheel alignment, and automotive electricity. During the spring semester, first year students concentrate on automotive electronics and electrical systems, including batteries, starting systems, charging systems, ignition systems and vehicle wiring. In the second year, students cover the areas of engine performance diagnostics and repair, including: OBDII computerized engine control, CAN and network communications, high pressure and low pressure fuel injection systems, emission control systems, and ABS control systems. In the final semester, the courses cover areas of major engine service, automatic/manual transmissions, final drive assemblies and advanced electronics. Seniors in the transportation trades programs have the option to participate in a structured field trip to Detroit, MI in order to experience the history and manufacturing processes of the transportation industry.

## CAREER OPPORTUNITIES

Graduates of the automotive technology program will be qualified as entry level technicians, finding employment opportunities with automobile dealerships, independent garages, aftermarket specialty shops and other related businesses.



*The Automotive Technology program has achieved National Institute for Automotive Excellence (ASE) certification after a thorough evaluation by the National Automotive Technicians Education Foundation (NATEF).*

*NMCC is an equal opportunity/affirmative action institution and employer. For more information, please call 768-2791.*

## ADMISSIONS POLICY

Completion of a four-year high school program or a state high school equivalency certificate is required for admission into NMCC's automotive technology program. Two years of high school math are required, with algebra I required for associate degree applicants and desired for certificate applicants. Algebra II is desired of all applicants; geometry and physics are desired for those entering the associate degree level. A rolling admissions policy affords candidates the opportunity to apply and be considered for acceptance throughout the year, but early application (9-10 months prior to the school year) is recommended because of competition and strict enrollment capacities established for each program.

## APPLICATION PROCEDURE

*The following procedures constitute the admissions process:*

1. An application form must be submitted accompanied by a nonrefundable \$20 application fee.
2. An official high school transcript must also be submitted (current seniors' transcripts should include completed ranking periods); GED test scores must be submitted by applicants who are not high school graduates.
3. Official college transcripts must be submitted by applicants who have attended other colleges or postsecondary schools.
4. Placement testing or appropriate SAT scores, individual interviews and campus tours are required, in most cases, prior to being admitted.
5. Admissions decisions are made as quickly as possible once a candidate's file is complete.
6. Accepted applicants are required to make a deposit within thirty days of acceptance. Students requesting on-campus housing are required to submit an additional deposit to reserve space in the residential complex.

# AUTOMOTIVE TECHNOLOGY

## 2016-2017 Curriculum

### Associate in Applied Science Degree Program

<u>First Semester</u>		<u>C</u>	<u>L</u>	<u>CR</u>
♦AUT 109	Intro. to Auto Tech	.5	1.5	1
♦AUT 113	Suspension/Steering/Brakes	3	9	6
♦AUT 115	Automotive Electricity	2	2	3
MAT 119	Applied Mathematics	4	0	4
WEI 101	Intro. to Welding	<u>2</u>	<u>2</u>	<u>3</u>
		11.5	14.5	17

<u>Second Semester</u>				
♦AUT 123	Electrical Systems	3	9	6
♦AUT 125	Automotive Electronics	2	2	3
ENG 111	English Composition	3	0	3
SAE 121	Industrial Safety	3	0	3
	Humanities Elective	<u>3</u>	<u>0</u>	<u>3</u>
		14	11	18

<u>Third Semester</u>				
♦AUT 214	Engine Performance	3	9	6
♦AUT 229	Auto Heating & Air Cond.	2	2	3
♦AUT 231	Innovative Auto Technologies	2	2	3
AUT 216	Motor Vehicle Inspection	2	0	2
COM 221	Technical Communications	3	0	3
	General Education Elective	<u>1</u>	<u>0</u>	<u>1</u>
		13	13	18

<u>Fourth Semester</u>				
♦AUT 224	Engine/Transmissions	3	9	6
♦AUT 228	Alternative Propulsion Sys	2	2	3
PHY 150	Physics	3	2	4
	Social Science Elective	<u>3</u>	<u>0</u>	<u>3</u>
		11	13	16

**TOTAL REQUIRED** 69

### Certificate Program

<u>First Semester</u>		<u>C</u>	<u>L</u>	<u>CR</u>
♦AUT 109	Intro. to Auto Tech	.5	1.5	1
♦AUT 113	Suspension/Steering/Brakes	3	9	6
♦AUT 115	Automotive Electricity	2	2	3
MAT 119	Applied Mathematics	4	0	4
WEI 101	Intro. to Welding	<u>2</u>	<u>2</u>	<u>3</u>
		11.5	14.5	17

<u>Second Semester</u>				
♦AUT 123	Electrical Systems	3	9	6
♦AUT 125	Automotive Electronics	2	2	3
ENG 111	English Composition	3	0	3
SAE 121	Industrial Safety	<u>3</u>	<u>0</u>	<u>3</u>
		11	11	15

**TOTAL REQUIRED** 32

♦ *Major courses; a minimum grade of "C" or 2.0 required.*