



# AUTOMOTIVE TECHNOLOGY



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### 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.



The Automotive Technology program has achieved Master Level certification by the National Institute for Automotive Excellence (ASE) after a thorough evaluation.

Receive hands-on instruction on the bumper to bumper mechanical, electrical and computer aspects of a vehicle.

### 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
- other related businesses.

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### APPLICATION PROCEDURE

The following procedures constitute the admissions process:

1. Submit an NMCC application along with a \$20 application fee.
2. Submit official high school transcript and/or HiSET/GED scores (current senior's transcript should include completed ranking period grades).
3. Official college transcripts for applicants who have attended other post-secondary schools.
4. If SAT scores are not available, placement testing may be required.
5. Individual interview required.
6. A campus tour is highly recommended.

**Questions? Contact [admissions@nmcc.edu](mailto:admissions@nmcc.edu)**

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## 2020-2021 Curriculum

### Associate in Applied Science Degree Program

<u>First Semester</u>		C	L	CR
♦ AUT 109	Intro. to Auto Tech	.5	1.5	1
♦ AUT 114	Suspension and Steering	*1.5	*4.5	3
♦ AUT 115	Automotive Electricity	2	2	3
♦ AUT 116	Brakes	*1.5	*4.5	3
COL 103	College Success	1	0	1
ENG 111	English Composition	3	0	3
WEI 103	Welding for Auto Tech	2	2	3
		11.5	14.5	17

<u>Second Semester</u>		C	L	CR
♦ AUT 124	Engine Repair	3	9	6
♦ AUT 125	Automotive Electronics	2	2	3
AUT 216	Motor Vehicle Inspection	2	0	2
MAT 119	Applied Mathematics	4	0	4
	Humanities Elective	3	0	3
		14	11	18

<u>Third Semester</u>		C	L	CR
♦ 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 233	Light Vehicle Diesel Systems	2	2	3
PHY 150	Physics	3	2	4
		12	17	19

<u>Fourth Semester</u>		C	L	CR
♦ AUT 223	Manual Drive Train and Axles	*1.5	*4.5	3
♦ AUT 225	Automatic Transmissions	*1.5	*4.5	3
♦ AUT 228	Alternative Propulsion Sys	2	2	3
COM 221	Technical Communications	3	0	3
	Social Science Elective	3	0	3
		11	11	15

**TOTAL REQUIRED** 69

### Certificate Program

<u>First Semester</u>		C	L	CR
♦ AUT 109	Intro. to Auto Tech	.5	1.5	1
♦ AUT 114	Suspension and Steering	*1.5	*4.5	3
♦ AUT 115	Automotive Electricity	2	2	3
♦ AUT 116	Brakes	*1.5	*4.5	3
COL 103	College Success	1	0	1
ENG 111	English Composition	3	0	3
WEI 103	Welding for Auto Tech	2	2	3
		11.5	14.5	17

<u>Second Semester</u>		C	L	CR
♦ AUT 124	Engine Repair	3	9	6
♦ AUT 125	Automotive Electronics	2	2	3
AUT 216	Motor Vehicle Inspection	2	0	2
MAT 119	Applied Mathematics	4	0	4
		11	11	15

**TOTAL REQUIRED** 32

\*Note: AUT courses within a semester are scheduled sequentially, not concurrently.

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

Key: C= Class Hours, L= Lab Hours, CR= Credit Hours

**Learn about hybrid and electric vehicle technology and advances in alternative fuels!**

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

**207-768-2785**

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