

# DIESEL HYDRAULICS TECHNOLOGY



## PURPOSE OF PROGRAM

Diesel hydraulics technology is a two-year program emphasizing the basic principles of mechanics, building on mechanical aptitude and knowledge of the eight areas of medium/heavy truck systems. These areas include preventative maintenance, brakes, diesel engine diagnosis and tune-up, suspension and steering, drive train, electrical/electronics systems and heating ventilation and A/C. In the first semester, students concentrate on preventative maintenance, engine diagnostics and tune up and electricity fundamentals. Coursework in the spring semester includes brakes, suspension and steering and electrical systems. Specialization in diesel hydraulics, hydraulic systems test and repairs, diesel engine rebuilding, electronic controls and heating/air conditioning round out the second year.

## CAREER OPPORTUNITIES

Graduates of the diesel hydraulics technology program may find employment as technicians with construction companies, logging companies, farm machinery dealers, heavy equipment dealers and farm operations. Capable graduates can advance into management positions.



*The Diesel Hydraulics 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 diesel hydraulics 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 for all applicants, while geometry and physics are desired for those entering the associate degree level. A rolling admissions policy affords candidates the opportunity to apply and be accepted 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).
3. GED test scores must be submitted by applicants who are not high school graduates.
4. Official college transcripts must be submitted by applicants who have attended other colleges or post-secondary schools.
5. Placement testing or appropriate SAT scores, individual interviews and campus tours are required, in most cases, prior to being admitted.
6. Admissions decisions are made as quickly as possible once a candidate's file is complete.
7. 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.

# DIESEL HYDRAULICS TECHNOLOGY

## 2016-2017 Curriculum

### Associate in Applied Science Degree Program

<u>First Semester</u>		C	L	CR
♦AUT 115	Automotive Electricity	2	2	3
♦DIM 112	Intro to Diesel Hydraulics	3*	9*	3
♦DIM 114	Engine Diagnosis/Tune-up	3*	9*	3
ENG 111	English Composition	3	0	3
SAE 121	Industrial Safety	3	0	3
WEI 101	Intro. to Welding	2	2	3
		13	13	18

<u>Second Semester</u>		C	L	CR
♦AUT 125	Automotive Electronics	2	2	3
♦DIM 122	Heavy Equipment/ Electrical Systems	3*	9*	3
♦DIM 123	Brake Systems	3*	9*	1.5
♦DIM 125	Suspension/Steering Sys.	3*	9*	1.5
MAT 119	Applied Mathematics	4	0	4
WEI 133	Electric Welding	2	2	3
	General Education Elective	1	0	1
		12	13	17

<u>Third Semester</u>		C	L	CR
♦AUT 229	Auto Heating and AC	2	2	3
♦DIM 211	Hydraulics Technology	3*	9*	3
♦DIM 213	Diesel Engine Rebuilding	3*	9*	3
PHY 150	Physics	3	2	4
	Social Science Elective	3	0	3
		11	13	16

<u>Fourth Semester</u>		C	L	CR
AUT 216	Motor Vehicle Inspection	2	0	2
♦DIM 221	Drive Train Systems	3*	9*	3
♦DIM 222	Air Conditioning Systems/ Transport Refrigerations	3*	9*	3
COM 221	Technical Communications	3	0	3
	Humanities Elective	3	0	3
	Elective	3	0	3
		14	9	17

**TOTAL REQUIRED** 68

### Certificate Program

<u>First Semester</u>		C	L	CR
♦AUT 115	Automotive Electricity	2	2	3
♦DIM 112	Intro to Diesel Hydraulics	3*	9*	3
♦DIM 114	Engine Diagnosis/Tune-up	3*	9*	3
ENG 111	English Composition	3	0	3
WEI 101	Intro. to Welding	2	2	3
		10	13	15

<u>Second Semester</u>		C	L	CR
♦AUT 125	Automotive Electronics	2	2	3
♦DIM 122	Heavy Equipment/ Electrical Systems	3*	9*	3
♦DIM 123	Brake Systems	3*	9*	1.5
♦DIM 125	Suspension/Steering Sys.	3*	9*	1.5
MAT 119	Applied Mathematics	4	0	4
WEI 133	Electric Welding	2	2	3
		11	13	16

**TOTAL REQUIRED** 31

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

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