Metropolitan Community College

DIESEL TECHNOLOGY

Student Handbook

2016

01/16

Metropolitan Community College
Mission Statement

Metropolitan Community College delivers relevant student-centered education to a diverse community of learners.

All efforts have been made to insure the accuracy and inclusion in this handbook. We regret any errors or omissions.

The College tuition is subject to change without prior notice by and at the discretion of the MCC Board of Governors.

Diesel Technology Program Overview

Career Description

The Diesel Technology Program prepares students for a career in the growing transportation industry. Using the latest equipment and technologies, the curriculum is built upon a foundation that includes the fundamentals of compression ignited internal combustion engines and their variations, shop safety, shop operations, brakes, drive trains, suspension, steering, electrical/electronic systems and heat/air conditioning. Additionally, the curriculum addresses the latest technology in engine repair, hydraulic and electrical systems, test procedures and diagnostics, and power generation. Rounding out the associate degree program are general education courses that give you the background necessary for successful employment.

Is it a good fit for you?

Diesel Technology is for you if you love big rigs, possess mechanical aptitude, good math skills, strong communication skills, and enjoy the challenge of diagnosing and solving problems.

What are the diesel classes like?

The diesel classes prepare students for a career in the growing transportation industry. Students will interact with industry in real world scenarios during the internships, gaining the confidence and skills needed to succeed. Technicians may work on light to heavy duty vehicles or expand into various other fields in the transportation industry.

What other classes are required?

- The ability to do math, communicate orally and through written forms, operate computers, and the ability to work with the public are skills sought by employers of diesel technicians. The general education requirements teach those skills. Twenty-seven (27) credit hours of general education work are required to complete your Associate of Applied Science degree. This includes two English classes, one applied mathematics class, one social science class, one computer class, and a human relations class. In order to determine math and English placement, you must take an MCC placement test. **Note: If you are transferring classes from another college in the areas of math, English, social science, or humanities you must have earned a grade of C or above and the credits must have been earned from an accredited college or university. If you have ACT scores within the past two years, these also can be used in place of the MCC placement test. (Please consult an academic advisor.)**
- There are three (3) options in the Diesel Technology Program including:
  Diesel Service Option - DESL 2981 and DESL 2982 each require 320 hours of on-the-job training. Each course can either be taken during one quarter or extended over more than one quarter depending on the needs of the student and the employer.
  Heavy Equipment Option - DESL 2981 requires 320 hours of on-the-job training. The course can either be taken during one quarter or extended over more than one quarter depending on the needs of the student and the employer.

Power Generation Option – DESL 2983 and DESL 2984 requires 160 hours of on-the-job training.

When should I take the general education classes?

There is no requirement when the general education classes must be taken; however, it is of great benefit to complete them before entering the DESL classes. They can be completed before, during, or after completion of the DESL core classes.

When are the classes offered?

The DESL classes are offered Monday thru Saturday with daytime and evening hours.

Where are the classes held?

Most of the DESL classes are held at the Applied Technology Center (ATC) located at 10407 State Street. This site has indoor classrooms as well as an indoor lab where students receive hands-on training in the inspection, maintenance, and repair of diesel engines, transmissions, electrical/electronic control systems, and heating and air conditioning.

What does it cost for this program?

To obtain a degree you are required to take 101.0 to 103.0 credit hours. Tuition cost per hour, including the Facilities Fee, is $61.00 for residents and $89.00 for non-residents. The College tuition rate is subject to change without prior notice by and at the discretion of the MCC Board of Governors. Book costs will vary from one class to another but the book cost for the DESL classes are under $800. You will also be required to purchase tools that are unique to the Diesel Technology trade.

What are the entry requirements?

- Must be physically fit
- Must have a valid driver's license
- Must possess mechanical aptitude
- Must take the required placement tests
- Must test at college level in math, English, and Reading

Diesel Technology (DTAAS)
Associates in Applied Science Degree

General Education Requirements – 27.0 credit hours

ENGL Level I	4.5
ENGL Level II	4.5

See Communications course options - ENGL 1220 and ENGL 1240 are recommended.

Humanities/Social Sciences	4.5

See Humanities/social sciences course options - PSYC 1000 is recommended.

Mathematics/MATH 1240 or higher	4.5

The highest math class level above MATH 1240 the students qualifies for is recommended (4.5 credits or greater).

HMRL 1010 Human Relations Skills	4.5
INFO 1001 Information Systems & Literacy	4.5

Major Requirements for Diesel Service Technology - 34.0 credit hours

DESL 1000	Diesel Preventive Maintenance	4.5
DESL 1210	Diesel Electronics & Electricity	6.0
DESL 1230	Diesel Engine Fundamentals	4.0
DESL 1301	CDL for Diesel Techs I	2.5
DESL 1302	CDL for Diesel Techs II	1.5
DESL 2211	Fuel Operating Systems	4.5
DESL 2220	Diesel Engine Diagnostics	4.0
DESL 2230	Diesel Engine Rebuild	4.0
DESL 2240	Emission & Maintenance	3.0

Students who currently hold a Class A or Class B CDL may ask for a waiver of DESL 1301 and DESL 1302.

Students may not register for DESL 1210 Electricity and Electronics until they qualify by proper MCC testing procedures for entry into MATH 1240 or higher.

Diesel Technology – Diesel Service (DTDSO)

Award: Associate in applied science degree

Program location: Applied Technology Center

With the complexity of trucks and the increasing need for qualified, trained diesel technicians, this degree provides students with the fundamentals needed for employment in the field of diesel service technology.

Graduation Requirements

General education	27.0
Major requirements	34.0
Option requirements	42.0
Total credit hours required	**103.0**

Option Requirements

DESL 1115	Alternative Fueled Engines	3.0
DESL 1200	Fundamentals of Hydraulics	3.0
DESL 1620	Climate Control Heating and A/C	4.0
DESL 2100	Heavy Duty Drivetrain	3.0
DESL 2120	Automatic & Automated Drivetrain	3.0
DESL 2150	Truck ABS & Brakes	4.0
DESL 2200	Steering, Suspension and Brakes	3.0
DESL 2981	Diesel Internship I	8.0
DESL 2982	Diesel Internship II	8.0
WELD 1261	Combination Welding - Automotive	3.0

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DESL 2981 and DESL 2982 each require 320 hours of on-the-job training. Each course can either be taken during one quarter or extended over more than one quarter depending on needs of students and employers.

Diesel Technology – Heavy Equipment (DTHEO)

Award: Associate in applied science degree

Program location: Applied Technology Center

This degree option prepares students for a career in the heavy equipment, construction, and utility industries. This degree serves students by providing a diverse education of coursework that is taught by faculty with direct experience in the industry. A major strength of this program is the strong hands-on approach to learning.

Graduation Requirements

General education	27.0
Major requirements	34.0
Option requirements	42.0
Total credit hours required	**103.0**

Option requirements

DESL 1200	Fundamentals of Hydraulics	3.0
DESL 1220	Advanced Diesel Hydraulics	6.0
DESL 1620	Climate Control Heating and A/C	4.0
DESL 2110	Heavy Equipment Drivetrain	6.0
DESL 2120	Automatic & Automated Drivetrain	3.0
DESL 2250	Field Service Maintenance	6.0
DESL 2985	Heavy Equipment Internship	8.0
WELD 1262	Quick Start	3.0
WELD 1500	SMAW (Stick) Flat	3.0

Diesel Technology – Power Generation (DTPGO)

Award: Associate in applied science degree

Program location: Applied Technology Center

This degree option prepares students for a career in the growing diesel power generation field. This option is one of only a few nationally that allows students to get both diesel and alternative fuel engine training while learning AC power generation methods and distribution technologies.

Graduation Requirements

General education	27.0
Major requirements	34.0
Option requirements	40.0
Total credit hours required	**101.0**

Option Requirements

DESL 1040	Generator Theory	6.0
DESL 1115	Alternative Fueled Engines	3.0
DESL 2040	Power Generator Applications	6.0
DESL 2100	Heavy Duty Drivetrain	3.0
DESL 2215	Diesel Generator Controls	3.0
DESL 2983	Diesel Internship III	4.0
DESL 2984	Diesel Internship IV	4.0
UTIL 1020	Electricity I	5.5
UTIL 2020	Transformer Theory	5.5

Diesel Truck (DDES1)

Award: Career certificate

Pathway to associate degree: Diesel Technology - Diesel Service (DTDSO)

Program location: Applied Technology Center

This career certificate provides the knowledge and skills needed for an entry-level position in the transportation industry. The career certificate provides students with fundamental instruction in the basic operation of diesel engines, service, brakes, electrical systems, and power trains.

Option Requirements

DESL 1000 Diesel Preventative Maintenance	4.5
DESL 1210 Electricity and Electronics	6.0
DESL 1230 Diesel Engine Fundamentals	4.0
DESL 1620 Climate Control/Heating and Air Conditioning	4.0
DESL 2100 Heavy Duty Drivetrain	3.0
DESL 2150 Truck ABS and Brakes	4.0
DESL 2200 Steering and Suspension	3.0
WELD 1261 combination Welding – Automotive	3.0

Diesel/Automotive Parts Sales (DTSCC)

Award: Career certificate

Pathway to associate degree: General Studies (GSAAS)

Program location: Applied Technology Center

This career certificate provides the knowledge and skills needed for an entry-level position in the transportation parts industry. The certificate provides students with fundamental instruction in the basic parts sales for diesel engines, brakes, suspension, electrical systems, and power trains.

Option Requirements (30.0-33.0 credit hours)

DESL Courses

DESL 1000	Diesel Preventive Maintenance	4.5
DESL 1050	Diesel/Automotive Parts Sales	2.0
DESL 1230	Diesel Engine Fundamentals	4.0
DESL 2200	Steering and Suspension	3.0

Elective - Select one of the following DESL courses:

DESL 1210	Electricity and Electronics	6.0
DESL 2100	Heavy Duty Drivetrain	3.0
DESL 2150	Truck ABS and Brakes	4.0

BSAD Courses - Select 9.0 credit hours from the following:

BSAD 1000	Introduction to Business	4.5
BSAD 1010	Principles of Marketing	4.5
BSAD 1200	Principles of Selling	4.5
BSAD 1201	Advertising and Sales Promotion	4.5
BSAD 1210	Retailing	4.5

SPCH Course - Select one of the following:

SPCH 1110	Public Speaking	4.5
SPCH 1220	Communication in Small Groups	4.5
SPCH 1300	Interpersonal Communication	4.5

DIESEL TECHNOLOGY PROGRAM TOOL LIST

First Quarter

First Quarter (If student registers for any of these classes)		
Classes	**DESL 1000, 1040, 1115, 1200, 1210, 1230, 2100, 2150, 2200**	
Quantity	**Tool Description**	**Price**
	1/4 " Drive Set – To Include:	
1 set	6 point sockets (3/16" thru 9/16") & (5mm thru 15mm)	
1	Universal joint	
1	2" Extension	
1	6" Extension	
1	5" Ratchet	
	3/8" Drive Set – To Include:	
1 set	12 or 6 point sockets (5/16" through 7/8")	
1 set	12 or 6 point sockets (10mm through 19mm)	
1	Universal joint (2 piece impact quality)	
1	2" to 3" Extension	
1	6" Extension or a bigger set	
1	12" Extension	
1	Ratchet (longer is better and flex head is nice)	
1	8" to 10" Breaker bar	
	Combination Wrench Set	
1 set	Long combination wrench set (10mm through 19mm 12 point box end	
1 set	Long combination wrench set (5/16" through 1 ¼" 12 point box end	
	Screwdriver Set	
1 set	Screwdriver combination set 1/4" x 2", 3/16" x 3", 5/16" x 6", 3/8" x 8" Phillips #1 x 2" #2 x 4"	
1	Interchangeable magnetic screwdriver	
1 set	Specialty bits (Torx and others)	
	Miscellaneous	
1	Carrying Box or Satchel-Bag minimum size 9"x 9"x 18"	
1	Ball peen hammer (24 oz)	
1	Battery Terminal and Cable Cleaner-Brush	
1 set	Screw extractor set (minimum 5 pieces)	
1	Adapter (1/2" female x ¾" male)	
1	Adapter(1/4" female x 3/8" male)	
1	Adapter(3/4" female x ½ " male)	

1	Adapter (3/8” female x ¼” male)	
1	Adapter (1/2” female x 3/8” male)	
1	Adapter (3/8” female x ½” male)	
1	Torque wrench (1/2” drive, 250 lbs)	
1 set	¼” dr. Torx sockets (5 piece – T8, T10, T15, T20 & T25)	
1 set	3/8” dr. Torx sockets (6 piece – T27, T30, T40, T45, T50 & T55	
1 set	High speed drill bit set (1/16” through ½”)	
	Pliers	
1	Terminal Crimper with wire cutter	
1	Diagonal cutting pliers (7” minimum)	
1	Long nose pliers	
1 set	Snap ring pliers (Variable tips) (internal/external, ≈ .070” tips)	
1 set	Snap ring pliers (Variable tips) (internal/external, ≈ .038” tips)	

Second Quarter

Second Quarter (If student registers for any of these classes)		
Classes	**DESL 1040, 1115, 1200, 1210, 1220, 1230, 1620, 2100, 2110, 2120, 2150, 2200, 2211, or 2215**	
Quantity	**Description**	**Price**
1	Rollaway tool cabinet with locking drawers(6 drawer minimum, 4” x 2” wheels minimum, at least 28”W x19”D x 42”H)	
	1/2" Drive Set – To Include:	
1 set	12 or 6 point sockets (7/16” through 1 ¼”)	
1 set	12 or 6 point sockets (10mm through 19,21,24,27.30 &36mm)	
1	2” Extension	
1	4” to 6” Extension or a bigger set	
1	18” or longer Breaker bar	
1	Universal joint (impact quality)	
1	Ratchet (longer is better)	
1	Flex head ratchet (optional lengths)	
	Hammers	
1	Ball peen or double faced hammer (48 oz)	
1	Sledge hammer (3 or 5 #)	
1	Dead blow (no bounce hammer)	

	Pry Bars	
1	Pry bar set, 3 or 4	
1	Roll head – line-up pry bar set, 3 or 4	
	Miscellaneous	
1	Circuit Tester	
1	Battery Terminal and Cable Cleaner-Brush	
1	Test Meter DVOM (Fluke or equivalent)	
1	6” Dial Caliper	
1	0-1” Vernier Micrometer	
1	Filter wrench or wrenches	

Third Quarter

Third Quarter (If student registers for any of these classes)		
Classes	**DESL 1040, 1115, 1200, 1210, 1220, 1230, 1620, 2100, 2110, 2120, 2150, 2200, 2211, 2215, 2220, 2230, 2240, 2981, 2983, or 2985**	
Quantity	**Description**	**Price**
	Chisel and Punch Sets	
1 set	Chisels (5/16”, 3/8”, and 1/2”)	
1	Round nose cape chisel (5/16”)	
1 set	Starter punches (3/32”, 1/8”, and 5/32”)	
1 set	Pin punches (3/32”, 1/8”, and 5/32”)	
1	Center punch (6”)	
1	Brass drift punch (about 13/16” diameter x 12” long)	
1	Tapered brass punch (12”)	
1	Punch (long stock ¾” x 3/8” tip 15”long)	
1	Punch (short stock 5/8” x 5/16” tip 7” long)	
1	Punch (short stock ¾” x 3/8” tip 7” long)	
	Miscellaneous	
1 set	Hex keys (13 piece w/long handles 3/32” through 5/8”)	
1	Hand scratch wire brush	
1	O-ring pick set, 4 styles	
1	Lever blow-gun	
1	Gasket scraper	
1	Mill file (10”) or combination set	
1	Rat tail file (10”)	
1 set	Adjustable wrenches (set up to 12”)	

1	Adjustable wrench (15” or longer)	
1	Telescoping flex magnet (16”)	
1	Adjustable utility knife	
1	Pipe wrench (10” to 16”)	
1	Tire PSI Gauge (dual wheel)	
1	Tire air chuck (dual wheel) with male coupler	
1 set	Metric combination long wrenches (10 mm – 19mm)	
1set	Standard combination long wrenches (3/8” – 15/16”)	
1 set	Metric 3/8” drive deep sockets (8mm – 19mm)	
1 set	Standard 3/8” drive deep sockets 3/8” – 7/8”	
1	3/8” drive impact wrench (pistol, butterfly, or battery)	
1	3/8” drive air or electric ratchet	
1	3/8” dr. impact flex sockets (6 point, 3/8” thru ¾”)	
1	3/8” dr. impact flex sockets (6 point, 10mm thru 18mm	
1	½” impact wrench	
1 set	½ dr. Impacts sockets (6 point – 7/16” thru 1 ¼”)	
1 set	½ dr. Impacts sockets (6 point – 10mm thru 27mm)	
1 set	Short combination wrenches 7 wrenches – 3/8” through ¾”)	
1	Corrugated Band Ring Compressor	
1	Ring Expander 3.5” to 6”	
	Pliers	
1	12” Channel Lock Plier	

Fourth Quarter

4th Qtr. Required for Heavy Equipment Option Students &/or DESL 2985 Optional Tools for Truck Service Option & Power Generation Option Students 3rd thru 8th Qtr.		
1 set	¾” dr. sockets (12 point – 17 sockets, 7/8” though 2”)	**Price**
1	¾” extension (8” long)	
1	¾” extension (16” long)	
1	¾” ratchet	
1	¾” flex handle	

Lab Area Policies

The Diesel Technology lab area is an extension of the classroom and should be treated as such. In order to provide for a safe, clean environment conducive to learning, the following rules of conduct are expected in the lab area.

1. Safe work practices as defined by the instructor must be followed at all times.
2. All vehicles entering the lab must have instructor approval.
3. All work must be related to Diesel Technology repairs and the curriculum of the program.
4. Visitors are not allowed in the lab during class time.
5. Smoking and smokeless tobacco are prohibited in the lab. Use only designated smoking areas. There is a designated area on the west side of the building.
6. Spitting on the lab floor is unsanitary and not allowed.
7. All dust, dirt and other debris in the student's work are is the responsibility of the student. This must be cleaned up before he/she leaves the work area for the day.
8. All broken or defective equipment must be reported to the lab technician or the instructor immediately.
9. Co-workers must be treated with respect. Any verbal or physical abuse among students or staff will not be tolerated.

Failure to comply with any of the above may lead to a temporary suspension, a failing grade, or disenrollment of the class.

Dress/Safety Code

1. Leather shoes (safety issue).
2. Hair cannot be down in front of eyes (safety issue).
3. Regular jeans are to be worn, no short pants (safety issue).
4. No loose clothing of any type (safety issue).
5. All clothing is to be worn properly. Hats straight, pants with belt (no sagging).
6. Program T-shirts are to be worn to all class and Lab activities
7. Safety glasses are to be worn any time you are in the lab area (safety issue).

Failure to comply with any of the above may lead to a temporary suspension, a failing grade, or disenrollment from the class.

Grading Criteria

All courses are graded according to the College system and standards. These standards appear in the College Catalog. In general students can receive the following grades in the auto body courses:

A ***Excellent.*** The student has demonstrated outstanding proficiency in mastering course objectives

B ***Above Average.*** The student has demonstrated above average proficiency in mastering all course objectives.

C ***Average.*** The student has demonstrated average proficiency in mastering course objectives.

D ***Below Average.*** In order to earn a DESL Career Certificate or graduate from the Diesel Technology Program with the AAS Degree a student must have a grade of C or better in all DESL courses.

F ***Failing.*** The student has not demonstrated a minimum passing proficiency in mastering course objectives.

I Incomplete. Due to extenuating circumstances a student may be given an extension of time to complete course objectives. An "I" grade must be made up prior to the end of the succeeding term or it becomes an "F." Assignment of "I" grades is a faculty prerogative and is issued when the student who has completed the majority of the course requirements is unable to complete the remainder due to unusual or extenuating circumstances.

The assignment of grades is at the prerogative of the instructor. If a student has any issue about his or her grade, the first person to contact is the instructor. If, after talking to the instructor, the student is not satisfied, he or she may contact the office of the Dean in writing.

The grading criteria for a specific course appear in the course syllabus that is handed to students on the first day of the class. In general these grades are based on written work and hands-on work. In all cases, class attendance and decorum count toward a grade.

Sample Syllabus

Metropolitan Community College
Course Syllabus – Fall Quarter 2015-16

COURSE IDENTIFICATION

Title: - Electricity and Electronics
Prefix/Section: - DESL 1210 D3 (242419)
Lecture/Lab/Credit Hours - 6 credit hours – 4 hrs lecture – 6 hrs lab
Begins/Ends/No-Class Days: - Begins 09/09/15, Ends 11/23/15 (22 classes)
Meeting Day/Time: - Monday and Wednesday 1:00 pm – 5:45 pm
Last Day to Withdraw - 11/09/2015 Census Date: -09/21/2015

Delivery Type: - *Classroom / Lab/ Hybrid Online*
Class Location: - (ATC) Applied Technology Center @ 10407 State St. Room 120
Lab Location: - (ATC) Applied Technology Center @ 10407 State St. Room 145

CONTACT INFORMATION

Instructor Name: - Don Gilliland
Office Location: - (ATC) Room 146
Office Telephone: - 402-763-5814
Cell Telephone: 402-316-8206
Facsimile: - 402-763-5841
Office Hours: - M – W 8:00 am – 1100 am;
(F am by appointment)
Email Address: - dgilliland@mccneb.edu
Faculty Web Site: - Active Shared: →
http://faculty.mccneb.edu/dgilliland
Academic Program Area: - Applied Technology
Dean's Office Telephone: - Kirk Ahrends 738 – 4521
or Connie Vaneske 738 – 4011

FOC Bookstore:
http://www.bkstr.com/webapp/wcs/stores/servlet/StoreCatalogDisplay?catalogId=10001&langId=-1&demoKey=d&storeId=10354

COURSE INFORMATION

Course Description: The student will gain a fundamental understanding of electrical principles and basic introductory electronics used in the Diesel Technology career field. This course present the basic electronic systems that are used in today's diesel powered trucks and their engines. The course is also designed to help the student gain understanding for diesel engine electricity and electronic application for heavy equipment and onsite power generation. Theory, operation and testing of common systems will be investigated with hands-on trainers and live work.

CO-REQUISITE: - DESL 1000 & Qualify for MATH 1240 by Compass or similar evaluation

COURSE OBJECTIVES	ASSESSMENT MEASURES:
1. Work safely in the shop/lab without harm to oneself or other students	Follow weekly lab rubric assessment (see attached below)
2. Gain the skill of tool usage through the hands on use of the student's own tools and equipment/tools supplied by the college.	Follow weekly lab rubric assessment (see attached below)
3. Perform electrical component disassembly, inspection, and assembly with emphasis on quality work.	Skill testing with quizzes and rubric assessment
4. Identify electric parts and components	Test bank quizzes and tests
5. Explain the function and theory of electric components	Test bank quizzes and tests Lab and skill quizzes
6. Identify and define basic acronyms and electrical and electronic terminology used in electrical diagnosis	Test bank quizzes and tests Lab and skill quizzes
7. Analyze and use electrical schematics for diagnostic use	Lab and skill quizzes student presentation evaluations
8. Properly use basic electrical test meters and equipment	Lab and skill quizzes student presentation evaluations
9. Properly use and define electrical terminology	Test bank quizzes and tests Lab and skill quizzes
10. Use specialized electrical testing equipment for diagnosis and failure analysis	Test bank quizzes and tests Lab and skill quizzes
11. Properly repair wiring connections in a professional way to insure proper weather sealing	Skill testing with quizzes and rubric assessment

Required & Supplemental Materials:

1. **Textbook:** Heavy Duty Truck Systems (Fifth Edition), Authors: Bennett and Norman, ISBN # 978-1-435-4838-28 at the approximate new cost of $276.50 (This book is available at the Fort Omaha Campus book store. http://www.foc.bkstr.com. You are required to have your own textbook by Monday 09-14-15 or you will fall too far behind. **(Assignments due for grading Monday 09-14-15)**

2. **Tools:** See Instructor for minimum requirements. Tools are required for all Diesel Technology classes. For the best learning experience in our MCC Diesel Program, you should acquire all your tools as soon as possible your first quarter. You must have tools as required by the instructor before your second quarter starts. Students will not be allowed to register for their third quarter classes

without the required tools listed on the official MCC Diesel Program Tool List. http://faculty.mccneb.edu/dgilliland

3. Students are required to purchase and wear MCC Diesel Program T-shirts to every class and lab activity. MCC Diesel Program T-shirts and all clothing worn to class and labs must be clean and free from contaminants that might compromise the integrity of lab projects.
4. **Personal dress and Safety attire:** This program will simulate the environment of a diesel truck/equipment dealer, fleet maintenance service facility or a professional repair establishment that strives to keep employees safe, productive and happily employed. The MCC faculty and staff are required to strongly enforce these standards and strive to keep you safe. In addition to MCC Diesel Program T-shirts, you will be required to wear leather work boots/shoes, safety glasses and clothing that would be acceptable to employers in this profession. I, as a professional in Diesel Technology, will coach you on your professional appearance to help you be ready for employment while you are participating in this career education.

Class Structure: **Major activities that will occur during class time**:

a. Disassembly, inspection and proper assembly of diesel powered electrical and electronic components.
b. Hands on learning with Metro's diesel powered trucks and engines.
c. Classroom training with power point/multimedia.
d. Field trips to dealer shops and related businesses with power train equipment.

CLASS ASSESSMENT

1. **Types of Assessment/Assignments & Maintenance of Student Records**
   a. Student progress feedback will come mainly from self-assessment of completed, graded and returned quizzes and midterm tests. The current grade of the student's shop/safety & lab rubric and instructor recommendations can be received when the student initiates a meeting with the instructor.
   b. Student quizzes and tests will be returned after grading and will serve as study guides for mid-term and final tests.
   c. The lab/shop skills spreadsheet will be retained by the instructor for a minimum of one (1) year, but can be viewed at a student initiated meeting with the instructor.
   d. General Education Competencies

2. **Grading Policy**
   a. 20% homework grade average.
   b. 30% quiz, test and exam grade average.
   c. 30% shop/safety & lab grade from rubric.

SHOP/SAFETY & LAB RUBRIC

Shop/Safety Area	0-3 Unacceptable	4-6 Marginal	7-8 Average	9 Above Average	10 Mastery
Personal Protective Equipment (PPE)					
Motivation, Attitude & Desire (MAD)					
Written & Oral Communications (WOC)					
House Keeping					
Workmanship & Pride					
Teamwork					
Talent, Aptitude & Confidence (TAC)					
Tool Usage					
Safety Conduct (Habits)					
Time management					

d. 20% attendance grade from the following rubric.

ATTENANCE RUBRIC

	0 Points Unacceptable	60 Points Below Marginal	80 Points Average	100 Points Mastery
Absent 3 times	X			
Absent 2 times		X		
Absent 1 time			X	
Perfect attendance				X

TOTAL _____

100 – 93% = A Grade
92 – 85% = B Grade
84 – 78% = C Grade
70 – 77% = D Grade
69% & less = F Grade

e. A 5 point perfect attendance bonus may be added to the attendance rubric score when earned (dependent upon Lab Rubric scores).

Note: In order to earn a DESL Career Certificate or graduate from the Diesel Technology Program with the AAS Degree a student must have a grade of C or better in all DESL courses.

ASSESSMENT OF STUDENT LEARNING PROGRAM:

Metropolitan Community College is committed to continuous improvement of teaching and learning. You may be asked to help us to accomplish this objective. For example, you may be asked to respond to surveys or questionnaires. In other cases, tests or assignments you are required to do for this course may be shared with faculty and used for assessment purposes.

INSTRUCTOR'S EXPECTATIONS OF STUDENTS:

1. **ATTENDANCE POLICY: Three absences** will cause you to earn a failing grade in the class. A student's proactive notification and make up of missed classes/lab work will be the only exception to this rule and will only be accepted in cases the instructor deems worthy. In worthy cases the student's extra credit lab work and any made up academic work will not erase the score earned in the attendance rubric. **Absence is absence.** Thus a "C" would be the best grade possible.

2. **ATTENDANCE/PARTICIPATION REPORTING:** To confirm each student's eligibility to remain registered for the class, the instructor will officially report attendance/participation on or before the Second day of class. Students in this section of DESL 1210 D3 must attend the first class meeting or they will be withdrawn for lack of participation before the second day of class (09/14/15). Any student who has been withdrawn from a class via the Participation Roster and wishes to be reinstated must re-register for the course. The student will need to obtain faculty approval on the CLOSED CLASS/LATE REGISTRATION form.

3. **COMMUNICATION EXPECTATIONS**: When you communicate with others in this course, you must follow the Student Conduct Code (**http://mccneb.smartcatalogiq.com/en/current/Course-Catalog/Student-Services/Student-Conduct**), which calls for responsible and cooperative behavior. Please think critically, ask questions, and challenge ideas, but also show respect for the opinions of others, respond to them politely, and maintain the confidentiality of thoughts expressed in the class. You may also wish to review information at **http://www.albion.com/netiquette**.

4. **ACADEMIC HONESTY:** Students are reminded that materials they use as sources for classwork may be subject to copyright protection. Additional information about copyright is provided on the library website at http://www.mccneb.edu/library or by your instructor. In response to incidents of student dishonesty (cheating, plagiarism, illegal peer-to-peer file sharing, etc.), the College imposes specific actions that may include receiving a failing grade on a test, failure in the course, suspension from the College, or dismissal from the College. Disciplinary procedures are available in the Advising/Counseling Centers or at **http://www.mccneb.edu/procedures/V-4_Student_Conduct_and_Discipline.pdf.**

5. **STUDENT WITHDRAWAL**: If you cannot participate in and complete this course, you should officially withdraw through My Services on the MCC My Way portal at http://myway.mccneb.edu or by calling Central Registration at 402-457-

5231 or 1-800-228-9553. Failure to officially withdraw will result in a failing (F) grade. The last date to withdraw is noted in the CLASS IDENTIFICATION section of this syllabus.

Expected Classroom/Lab/Fieldtrip Behavior:

1. **Be on time,** the class will start without you. Typically the first part of the class is the introduction of ***new*** materials/concepts and the missed information will make the required learning harder. Also, lateness is not tolerated in any work place. All **tardiness after 10 minutes or walk outs** will be counted as a daily **ABSENCE**.

2. **Class Participation** is expected and will be **STRONGLY** reflected on **YOUR Shop/Lab Skills Rubric.** Homework assignments must be turned in when due and will not be accepted after the second subsequent class period.

3. The student is expected to become familiar with the MCC Student Code of Conduct. **http://www.mccneb.edu/procedures/V-4_Student_Conduct_and_Discipline.pdf**

4. **Disruptive or unsafe behavior** as in **talking** at inappropriate times, not staying on task, seeking others attention and childish antics will get YOU **dismissed** for the day with it being **counted as absent** no matter the point in the class it occurs. **Improper dress, shoes or eye ware is regarded as unsafe behavior.**

5. **Cell phone usage will only be allowed in cases where the student has prearranged it with the instructor for infrequent and necessary needs only or when assigned by instructor. If cell phones are visible at inappropriate times they will be confiscated and returned to student at the end of the class period.**

6. **Absolutely no use of sound entertainment devices such as i-pods, walkmans, or radios of any kind will be used at any time in the classroom or laboratory. You need to give your full attention to all class and lab presentation.**

Notice: This syllabus is written as an expectation of class topics, learning activities, and expected learning outcomes. However, the instructor reserves the right to make changes in this schedule that may result in enhanced or more effective learning for students. These modifications will not substantially change the intent or objectives of this course and will be done within the policies and guidelines of Metropolitan Community College.

LEARNING SUPPORT http://www.mccneb.edu/ltc

MCC's Learning and Tutoring Centers, Math Centers, and Writing Centers offer friendly, supportive learning environments that can help students achieve educational success. Staff members in these centers provide free drop-in assistance with basic computing, reading, math, and writing skills. Self-paced, computer-assisted instructional support in reading, vocabulary, typing, English as a Second Language, and online course orientation is also available. Detailed information about the Learning and Tutoring, Math, and Writing Centers is in the My Way portal, the College Catalog, and online at **http://www.mccneb.edu/ltc/.**

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:

Metropolitan Community College will provide reasonable accommodations for persons with documented qualifying disabilities. It is the student's responsibility to request accommodations from Disability Support Services (DSS) located in each Student Services Office. After students have arranged for accommodations with DSS, the student and instructor should privately discuss these accommodations. For further information, please contact DSS or visit **http://www.mccneb.edu/dss/**.

NONDISCRIMINATION AND EQUAL OPPORTUNITY STATEMENT:

Metropolitan Community College does not discriminate on the basis of race, color, national origin, religion, sex, marital status, age, disability or sexual orientation in admission or access to its programs and activities or in its treatment or hiring of employees.

TECHNOLOGY SUPPORT

- If you have difficulty connecting to the Internet, call your Internet provider.
- If you need help connecting to the course from the BLACKBOARD login page, refer to "Getting Started Online" at **http://www.mccneb.edu/elearning/orientation.asp.**

- If you are unable to solve the problem, contact MCC Online Support:
  Alexandra Garrison (402) 457-2769 or acgarrison@mccneb.edu
  Curtis Bryant (402) 457-2853 or cebryant@mccneb.edu
  Chuck Davis (402) 457-2866 or cwdavis@mccneb.edu

For assistance with student email, passwords, and other MCC technology, contact the Help Desk at 402-457-2900 or **mcchelpdesk@mccneb.edu**.

TECHNOLOGY RESOURCES:

By using the information technology systems at MCC (including the computer systems and phones), you acknowledge and consent to the conditions of use as set forth in the Metropolitan Community College Procedures Memorandum on Acceptable Use of Information Technology and Resources. It is your responsibility as a student to be familiar with these procedures. The full text of the Procedures Memorandum may be found at the following website: **http://www.mccneb.edu/procedures/X-15_Technology_Resources_Use.pdf.**

COLLEGE POLICIES

College policies, such as student rights and responsibilities, academic standards, plagiarism, and etc. are outlined in the College Catalog and Student Handbook. This information can be accessed via the online catalog at **http://mccneb.smartcatalogiq.com/en/2014-2015/Course-Catalog.**

STUDENT CODE OF CONDUCT:

The College has a standard code of conduct that involves consequences for specific academic and non-academic behavior that may result in a failing grade, probation, or suspension from the college. More complete information about the code of conduct is located in the Student Services portion of the online catalog (**http://mccneb.smartcatalogiq.com/en/2014-2015/Course-Catalog/Student-Services/Student-Conduct**). Metropolitan Community College will provide reasonable accommodations for persons with documented qualifying disabilities. However, it is the student's responsibility to request accommodations. For further information, please contact the Student Services Office at your campus.

APPROXIMATE TOTAL COSTS OF PROGRAM
2015 - 2016 Academic Year

Associate in Applied Science Degree

Residency Status	**Total Tuition***	**Books**	**Tools**
Resident ($56 tuition + $5.00 fee per credit)*	$5,978 (minimum) $6,283 (maximum)	$800	$3500 min $6500 max
Non-Resident ($84.00 tuition + $5.00 fee per credit)*	$8,722 (minimum) $9.167 (maximum)	$800	$3500 min $6500 max
International ($84.00 tuition + $5.00 fee per credit)*	$8,722 (minimum) $9,167 (maximum)	$800	$3500 min $6500 max

Specialist Diploma

Residency Status	**Total Tuition***	**Books**	**Tools**
Resident ($56 tuition + $5.00 fee per credit)*	$2,196	$600	$3500 min $6500 max
Non-Resident ($84.00 tuition + $5.00 fee per credit)*	$3,204	$600	$3500 min $6500 max
International ($784.00 tuition + $5.00 fee per credit)*	$3,204	$600	$3500 min $6500 max

**The College tuition rate is subject to change without prior notice by and at the discretion of the MCC Board of Governors.*

Industry standards are defined as work that is acceptable for customer delivery.

The assignment of grades is ultimately the responsibility of the instructor based upon the above criteria. If a student believes that his/her final grade is inappropriate, he/she may petition the Dean **only after** discussing their concerns with the instructor. All grade appeals to the Dean must be in writing.

I have read these criteria and understand them completely.

_____ _____

Student Signature Date

_____ _____

Instructor Signature Date

METROPOLITAN COMMUNITY COLLEGE
MINIMUM PHYSICAL DIESEL TECHNICIAN STANDARDS

All Diesel students are required to meet definite standards for the profession; and for MCC classroom, laboratory, and Internship performance. Upon acceptance into programs, students will be expected to sign this document.

The following are specific requirements of all students:

1. **Ability to stand, sit, walk, push and squat.**
2. **Ability to lift and/or carry 25 pounds.**
3. **Ability to reach in forward, lateral and overhead motions.**
4. **Ability to climb stairs and ladders.**
5. **Ability to distinguish distance, colors, objects, and persons**
6. **Demonstrate visual depth perception.**
7. **Ability to hear conversations, monitor equipment, perform auscultation, use telephone and distinguish background noise.**
8. **Ability to distinguish sharp/dull and hot/cold.**
9. **Perform fine and gross motor skills with both hands.**
10. **Ability to read, comprehend and follow industry related safety standards.**
11. **Ability to think clearly and calmly in stressful situations.**
12. **Ability to communicate effectively, both verbally and in writing, using appropriate grammar, spelling and vocabulary.**
13. **Ability to work cooperatively with others.**

I have read the above technical standards and acknowledge that I can comply with each of them.

_____ _____

Student **Student ID**

_____

Date

Nondiscrimination & Equal Opportunity Statement

Metropolitan Community College does not discriminate on the basis of race, color, national origin, religion, sex, marital status, age, disability or sexual orientation in admission or access to its programs and activities or in its treatment or hiring of employees. The College complies with Title VI of the Civil Rights Act of 1964, the Civil Rights Act of 1990, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, as amended, the Age Discrimination Act of l975, related Executive Orders 11246 and 11375 and all civil rights laws of the State of Nebraska and the City of Omaha.

Contacts:

Concerning Title VI (race), Title IX (gender equity), Section 504 (disability) and Americans with Disabilities Act/Program and Services Accessibility, and Age, contact:

Vice President for Campuses and Student Affairs: 402-457-2681, aarich@mccneb.edu (students)
Associate Vice President of Human Resources: 402-457-2236. mmoeglin@mccneb.edu (employees)
Director of Facilities: 402-457-2529, bsedlacek@mccneb.edu (accessibility)
Or the U.S. Department of Education Assistant Secretary for Civil Rights, Office of Civil Rights: 800-421-3481, ocr@ed.gov

Concerning hiring and employment-related complaints of discrimination or harassment based on race, color, national origin, religion, sex, marital status, age, disability, sexual orientation, retaliation or for affirmative action and diversity issues, contact:

Associate Vice President for Equity and Diversity: 402-457-2649, cgooch@mccneb.edu

The address for all of the above individuals is as follows:

Metropolitan Community College
30th and Fort Streets
P.O. Box 3777
Omaha, NE 68103-0777

All efforts have been made to ensure the accuracy and inclusion of information contained herein. We regret any errors or omissions.


Metropolitan Community College
APPLIED TECHNOLOGY
CENTER