



## COURSE OUTLINE: MOT100 - INTRO/MOTIVE POWER

Prepared: Sylvain Belanger

Approved: Martha Irwin - Dean

<b>Course Code: Title</b>	MOT100: INTRODUCTION TO MOTIVE POWER
<b>Program Number: Name</b>	4005: PRE-TRADES TECHNOLOGY
<b>Department:</b>	PRE-TRADES & TECHNOLOGY
<b>Academic Year:</b>	2025-2026
<b>Course Description:</b>	<p>In this course the student will learn basic aspects of four different but related trade areas: Automotive, Marine and Small Engines, Heavy Equipment and Truck Coach. The course will cover the shop and safety practices related to all of the trades and the student will learn to use the appropriate tools used in a safe working manner. The student will learn about the types of internal combustion engines used in these trade areas and learn to do basic maintenance to the engines. Students will also learn about the fuel, suspension steering and braking systems used in the different types of vehicles and equipment used in the Motive Power Trades Areas. The student will be introduced to the computerized aspects involved in the Motive Power Trades from ordering of parts and supplies to the electronic computerized controls and diagnostics used on today's vehicles and equipment.</p>
<b>Total Credits:</b>	3
<b>Hours/Week:</b>	3
<b>Total Hours:</b>	42
<b>Prerequisites:</b>	There are no pre-requisites for this course.
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>	<b>4005 - PRE-TRADES TECHNOLOGY</b>
<b>Please refer to program web page for a complete listing of program outcomes where applicable.</b>	VLO 7 Obtain basic technical skills and introduce students to the theory and lab content of a variety of technical disciplines.
	VLO 9 Work with others
<b>Essential Employability Skills (EES) addressed in this course:</b>	EES 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 10 Manage the use of time and other resources to complete projects.
<b>Course Evaluation:</b>	Passing Grade: 50%, d  A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.



**Other Course Evaluation & Assessment Requirements:**

The final grade for this course will be based on the results of classroom, assignments and shop evaluations weighed as indicated:

1. Classroom: 20% of the final grade is comprised of term tests.
  2. Assignments: 20% of the final grade is comprised of assignments.
  3. Shop: 60% of the final grade is comprised of attendance, punctuality, preparedness, student ability, work organization and general attitude.
- (Students will be given notice of test and assignment dates in advance)

**Grade**

Definition Grade Point Equivalent

A+ 90 - 100% 4.00

A 80 - 89%

B 70 - 79% 3.00

C 60 - 69% 2.00

D 50 - 59% 1.00

F (Fail) 49% and below 0.00

CR (Credit) Credit for diploma requirements has been awarded.

S Satisfactory achievement in field /clinical placement or non-graded subject area.

U Unsatisfactory achievement in field/clinical placement or non-graded subject area.

X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.

NR Grade not reported to Registrar's office.

W Student has withdrawn from the course without academic penalty.

**Books and Required Resources:**

Handouts

Handouts will be provided

**Course Outcomes and Learning Objectives:**

<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
1. Use the appropriate shop equipment and hand tools associated with the Motive Power Trade areas taught in a safe and proper manner.	1.1 demonstrate the ability to use shop hoists 1.2 choose the proper tool for the task to be performed 1.3 demonstrate the ability to work safely in a Motive Power Shop environment
<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
2. Demonstrate basic theoretical knowledge of the topic areas covered in the four Motive Power Trade Areas listed,	2.1 identify the differences between the types of engines used in the Motive Power Trade areas 2.2 locate and identify the vehicles or equipments transmission and drive axles 2.3 list and identify the steering system and suspension system of different types of equipment and vehicles 2.4 identify the type of braking system relative to the vehicle or equipment used in each trade area 2.5 compare the sub-systems of each trade related vehicle or equipment and identify the similar mechanical and electrical components and their intended use 2.6 use electronic and hard copy manuals to locate and identify electrical and electronic components on various types of



	equipment and vehicles 2.7 use electronic parts and service system to provide identification and service procedures for automotive systems
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
3. Perform basic shop tasks associated with the theory related to each topic area in a safe working manner according to manufactures service procedures	3.1 perform vehicle maintenance 3.2 perform simple visual and mechanical tests to ensure that the sub systems, suspension, steering and brakes are working in a safe manner

**Evaluation Process and Grading System:**

Evaluation Type	Evaluation Weight
Practical Application Testing	60%
Theory Testing	40%

**Date:**

May 30, 2025

**Addendum:**

Please refer to the course outline addendum on the Learning Management System for further information.

