DMX4208 Automobile Technology

Level	4
Course Code	DMX4208
Course Title	Automobile Technology
Credit value	2
Core/Optional	Core
Course Aim/s	The aim of this course is to introduce the construction and operating principle of systems and sub systems of an automobile
Course Learning Outcomes (CLO):	At the completion of this course student will be able to: CLO1: Identify main components of an automotive engine and explain the construction and operating principle of automotive engines. CLO2 Compare performance of Automotive Engines on the basis of thermodynamic cycles and combustion process. CLO3: Identify main components of engine auxiliary systems and describe their operating principle. CLO4: Classify vehicle body according to body shape and frame structures. CLO5: Describe working principle of manual and automatic gear systems. CLO6: Describe working of automotive transmission systems. CLO7: Explain the requirements of axles, final drive, differential, steering systems and suspension systems. CLO8: Describe the construction features of brakes, tires, lighting and accessories. CLO9: Explain electrical systems of automobiles.
Content	**Outline Syllabus:** Unit 1 Session 01: Automotive engine construction Session 02: components of an engine Session 03: parameters that define performance of engines Session 04: four stroke and two stroke engines Session 05: Wankel engines Session 06: Lubricating system of automobile engines Session 07: cooling system Session 08: intake system. Session 09: exhaust system Unit 2 Session 10: steering system Session 11: braking system Session 12: suspension systems Session 13: tyre, wheel assembly Session 14: Charging system Session15: ignition systems Session 16: starting system

	Laboratory work: 1. Morse test, compression test, ignition timing of an engine 2. Plotting the valve timing diagram of an engine **3.** Repair of an automotive steering system