

## HIGHER NITEC IN TECHNOLOGY – AUTOMOTIVE ENGINEERING

Course Code: HTAUE / Plan Code: HTAUE

### COURSE OBJECTIVE

This course provides students with the skills and knowledge in to perform a range of progressively responsible tasks involving the service, inspection, repair and diagnosis of systems for petrol, diesel, and alternative powered vehicles. Work ranges from inspection and service to mechanical and electrical systems analysis using diagnostic equipment and related software.

### COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	<b>Automotive Mechanics</b> 45 hrs (T) 75 hrs (P) Credits: 6 Prerequisite: Nil	AT4001FP	On completion of the module, students should be able to observe workplace health and safety, extract technical information, select and use lifting equipment and hand tools [to disassemble/reassemble automotive systems and components], perform basic maintenance of chassis and undercarriage as well as transmission system and components, and handle proper disposal of automotive wastes.
		Equivalent Code Nil	
C2	<b>Control and Transmission Technology</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT4002FP	On completion of the module, students should be able to carry out servicing and perform inspection of the brake system, chassis and undercarriage, transmission system and supplemental restraint systems on a vehicle.
		Equivalent Code Nil	
C3	<b>Engine Technology</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT4003FP	On completion of the module, students should be able to perform inspection of the air intake system, fuel system, engine management system, emission control system, and engine mechanical system on a vehicle.
		Equivalent Code Nil	
C4	<b>Automotive Electrics</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT4004FP	On completion of the module students should be able to interpret diagnostic results and rectify faults in vehicle electrical systems, electronic circuits and air-conditioning system.
		Equivalent Code Nil	
C5	<b>Engine and Electrical Systems Diagnostics</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT5001FP	On completion of the module, student should be able to conduct system fault finding with the use of diagnostic tools and equipment, and rectify faults in engine electrical, body electrical, air-conditioning, fuel, lubrication and cooling, engine mechanical, engine management and emission control systems, as well as service alternative powered vehicle's motor and battery.
		Equivalent Codes Nil	
C6	<b>Control and Transmission Diagnostics</b> 45 hrs (T) 75 hrs (P) Credits: 7 Prerequisite: Nil	AT5002FP	On completion of the module, students should be able to interpret diagnostic results and rectify faults on vehicle wheel alignment, drive-line, suspension and steering, braking and transmission systems on petrol or diesel powered vehicle as well as service alternative powered vehicle's powertrain.
		Equivalent Codes Nil	

Abbreviations: T - Theory, P – Practical

### CREDITS FOR CERTIFICATION

Total of 41 credits from successful completion of 6 modules.

### VENUE

ITE College West

Note:

- 1) Applicant must be free from colour appreciation deficiency.
- 2) The training schedule of lessons is subject to change.
- 3) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.