

NITEC IN AUTOMOTIVE TECHNOLOGY

CERTIFICATION

Credits required for certification:

Core Modules	: 46
Life Skills Modules	: 9
Elective Modules	: 6
Total	: 61

COURSE STRUCTURE

Module Title	Credits
CORE MODULES	
Automotive Principles & Systems	4
Basic Chassis & Drivetrain Technology	7
Basic Engine Technology	4
Autotronics	7
Engine Technology & Powertrain Management	8
Chassis & Drivetrain Technology	8
Industry Attachment	8
ELECTIVES (COURSE SPECIFIC)	
Basic Electro-Pneumatics and Hydraulics	2
Workshop Supervision and Customer Reception	2
Vehicle and Motorcycle Inspection	2
Basic Motorcycle Service and Maintenance	2
ELECTIVES (INTER-DISCIPLINARY)	
Project Management	2
High Voltage Safety with Hybrid & Electric Vehicles	2
ELECTIVES (GENERAL) AND LIFE SKILLS MODULES	
For details, click here	

Note: The offer of electives is subject to the training schedule of respective ITE Colleges. Students are advised to check with their Class Advisors on the availability of the elective modules they intend to pursue.

MODULE OBJECTIVES

Core Modules

Automotive Principles & Systems

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 and reassemble automotive systems and components, check automotive components dimensions and basic electrical readings as well as the proper disposal of automotive wastes.

Basic Chassis & Drivetrain Technology

On completion of the module, students should be able to service and replace automotive drivetrain and chassis components like manual transmission clutch and brakes on a vehicle.

Basic Engine Technology

On completion of the module, students should be able to service engine system components of spark ignition and compression ignition engines on a vehicle.

Autotronics

On completion of the module, students should be able to interpret, measure, diagnose and rectify faults in vehicle electrical systems, electronic circuits and air-conditioning systems on a vehicle.

Engine Technology & Powertrain Management

On completion of the module, students should be able to conduct system fault finding with the use of diagnostic tools & equipment and rectify the system faults in engine electrical, fuel injection pump, lubrication and cooling, engine mechanical, engine management, emission control, forced air induction system on a vehicle.

Chassis & Drivetrain Technology

On completion of the module, students should be able to troubleshoot and rectify faults in automotive chassis and drivetrain systems components.

Industry Attachment

On completion of the module, students should be able to apply the skills and knowledge acquired to take on a range of job scope at the company.

Electives (Course Specific)

Basic Electro-Pneumatics and Hydraulics

On completion of the module, students should be able to assemble, perform fault diagnosis and rectification of basic electro-pneumatics and electro-hydraulic circuits used on heavy vehicles.

Workshop Supervision and Customer Reception

On completion of the module, students should be able to supervise servicing jobs and communicate to customers using good customer service skills.

Vehicle and Motorcycle Inspection

On completion of the module, students should be able to perform roadworthiness inspection and tests on vehicles and motorcycles.

Basic Motorcycle Service and Maintenance

On completion of the module, students should be able to perform basic service and replacement of components in the lubrication, brake and ignition system of a motorcycle.

Electives (Inter-disciplinary)

Project Management

On completion of the module, students should be able to use a software application for planning and managing projects.

High Voltage Safety with Hybrid & Electric Vehicles

On completion of the module, students should be able to illustrate the different battery configurations and performance requirements of high voltage vehicles. They will acquire safe working procedures and troubleshooting skills using appropriate diagnostic equipment and tools.

Electives (General) and Life Skills Modules

For details, click [here](#).