

HEAT Guide

HEAT (Hybrid Electric Automotive Training) Course Guide

The future of cars is changing. Can you take the HEAT?

With new zero emission vehicle registrations rising sharply, the growth of Electric Vehicle offers tremendous opportunities for businesses that are ready to embrace electric.

To be ready, businesses and individuals must invest in the right Electric Vehicle training to ensure their employees have the necessary skills and knowledge to accommodate future demand.

Hybrid Electric Automotive Training (HEAT) at Blackburn College is set to be the north's leading provider with the latest technology and training equipment for supporting electrical/hybrid teaching and upskilling for motor vehicle professionals.

With predictions showing there will be more than 6.5 million battery/electric vehicles on our roads by 2030, HEAT is dedicated to developing training that meets the demands of future EV technologies.

Welcome





Key facts by IMI include:

- There are around 245,000 automotive technicians, working on 38 million registered vehicles in the UK
- As of October 2020 there were 383,000 plug in cars & vans registered. It is predicted that this will increase to between 2.7 to 10.6 million by 2030
- Taking the top estimate (due to unexpected increase in sales in the past 3 months), the IMI calculates that the UK would need approximately 70,500 qualified technicians to support this vehicle parc
- The IMI estimates that there are between 13,000 and 20,000 technicians currently qualified to work on electric vehicles – which means a requirement of between 50,000 and 57,000 technicians by 2030

IMI Level 1 Award in Electric/Hybrid Vehicle Awareness

Why choose this course?

This course is aimed at those who require knowledge to work safely within the automotive retail industry as it continues to see an increase in Electric/Hybrid vehicles entering the workplace.

Designed to provide learners with an introduction to the knowledge of safe working practices, the dangers surrounding and the precautions required to avoid potential injury when near Electric/Hybrid vehicles.

This qualification offers an introduction to the specialised industry sector which in addition to complementing their current industry qualifications and experience, will enable them to continue to work safely within their role.

These roles can include non-technical roles such as:

- Managers
- Valeters
- Parts advisors
- Sales and aftersales advisor
- Event staff
- Vehicle recovery personnel
- Vehicle dismantlers
- Vehicle damage assessors
- Electric/Hybrid professional vehicle drivers

There are no formal entry requirements for this qualification and learners are not expected to have any prior knowledge or experience, however an interest in the subject area is advisable.

The content of this qualification has been designed to give the learners the knowledge required to work safely around Electric/Hybrid vehicles.

The course contains mandatory units covering:

- The types of Electric/Hybrid vehicles available
- Hazards associated with motor vehicle high energy electrical systems
- Working safely around Electric/Hybrid vehicles including charging
- As a result, learners successfully completing this qualification will acquire significant core knowledge of working safely around, but not maintain Electric/Hybrid vehicles.

Which subjects will complement this course?

This qualification will help support progression onto qualifications that further develop knowledge of either working safely in emergency or recovery situations or within a technical role carrying out routine servicing and maintenance activities on Electric/Hybrid vehicles.

Duration	3 hours
Cost	£140.00 per person

IMI Level 1



IMI Level 2 Award in Electric/Hybrid Vehicle Routine Maintenance Activities

Why choose this course?

This course is designed for those people who may encounter electric/hybrid vehicles within a routine maintenance situation. It also contains the knowledge and skills required to work safely around a vehicle that may have had damage to its high energy/electrical system.

This qualification offers an introduction to this specialised industry sector which in addition to complementing their current industry qualifications and experience, will enable them to continue to work safely within their role.

These roles can include:

- Vehicle maintenance and repair technicians

Individuals interested in taking this course will need to possess appropriate vehicle maintenance and repair knowledge and skills at level 2.

The content of this qualification has been designed to give the learners the knowledge and skills required to work safely on Electric/Hybrid vehicles whilst carrying out routine maintenance and repair activities (not voltage components or systems). This may include vehicles that may have or had damage to their high energy/electrical system.

The course contains mandatory units covering knowledge of:

- Electric/hybrid vehicle system components and operation
- Hazards surrounding electric/hybrid vehicles
- How to reduce the risks to yourself and others when working on electric/hybrid vehicles
- Safely preparing the vehicle when carrying routine maintenance (NOT high voltage components or systems)
- Carry out isolation procedures to make safe high energy systems prior to repair

As a result, learners successfully completing this qualification will acquire significant core knowledge and skills and the ability to work safely around and maintain Electric/Hybrid vehicles.

This qualification will help support progression onto qualifications that further develop their knowledge and skills within a technical role, carrying out repair and replacement of high voltage components on Electric/Hybrid vehicles.

Duration	2 days
Cost	£275.00 per person



IMI Level 2 Award in Electric/Hybrid Vehicle Hazard Management for Emergency & Recovery Personnel

Why choose this course?

This course is for those who have an interest in gaining the knowledge to work safely around Electric/Hybrid vehicles during emergency and recovery situations.

Designed for those who may encounter accident damaged or broken down electric/hybrid vehicles. The course contains the knowledge required to work safely around a vehicle that may have or had damage to its high energy/electrical system.

This qualification offers an introduction to this specialised industry sector which in addition to complementing their current industry qualifications and experience, will enable them to continue to work safely within their role.

These roles can include but are not exclusive to:

- Emergency services
- Roadside recovery operators

There are no formal entry requirements for this qualification and learners are not expected to have any prior knowledge or experience, however an interest in the subject area is advisable.

The content of this qualification has been designed to give the learners the knowledge required to work safely around Electric/Hybrid vehicles that may have or had damage to their high energy/electrical system, during emergency and recovery situations.

The course contains mandatory units covering knowledge of:

- The types of Electric/Hybrid vehicles available
- Hazards associated with motor vehicle high energy electrical systems
- Working safely around Electric/Hybrid vehicles including charging
- How to reduce the risk of injury when encountering electric/hybrid vehicles
- How to safely transport and store electric/hybrid vehicles
- Carry out isolation procedures to make safe high energy systems in roadside situations

As a result, learners successfully completing this qualification will acquire significant core knowledge and the ability to work safely around, but not maintain Electric/Hybrid vehicles.

This qualification will help support their progression onto qualifications that further develop their knowledge and skills within a technical role, carrying out routine servicing and maintenance activities on Electric/Hybrid vehicles.

Duration	2 days
Cost	£275.00 per person

IMI Level 2



IMI Level 3 Award in Electric/ Hybrid Vehicle System Repair and Replacement

Why choose this course?

This course is designed for those people who may encounter electric/hybrid vehicles within a routine maintenance situation. It also contains the knowledge and skills required to work safely around a vehicle that may have had damage to its high energy/electrical system.

This qualification offers an introduction to this specialised industry sector which in addition to complementing their current industry qualifications and experience, will enable them to continue to work safely within their role. These roles can include maintenance and repair technician.

Individuals interested in taking this course will need to possess appropriate vehicle maintenance and repair knowledge and skills at level 3.

The content of this qualification has been designed to give the learners the knowledge and skills required to work safely on Electric/Hybrid vehicles whilst carrying out diagnostic, testing and repair activities. This may include vehicles that may have or had damage to their high energy/electrical system.

It contains two mandatory units EV2.2 and EV3. EV2.2 covers all of the skills and knowledge from IMI Level 2 Award in Electric/Hybrid Vehicles Routine.

Maintenance Activities and EV3 covers skills in:

- Working safely on an electric/hybrid vehicle
- Using information to carry out the task
- Carry out isolation procedure in preparation to carry out repairs
- Carrying out repairs on high energy electrical systems
- Recording information and making suitable recommendations

As a result, learners successfully completing this qualification will acquire significant core knowledge and skills and the ability to remove and replace Electric/Hybrid vehicle high voltage components.

This qualification will help support their progression onto qualifications that further develop their knowledge and skills within a technical role, carrying out diagnosis, repair and testing of high voltage components on Electric/Hybrid vehicles.

Duration	3 days
Cost	£485.00 per person

IMI
Level 3



IMI Level 3 Award in Automotive Refrigerant Handling

Why choose this course?

The purpose and aim of this qualification is to qualify individuals (working with motor cars and car derived vans) to meet the European Union F gas regulations (Commission Regulation EC 842/2006 and the later Annex to Commission Regulation EC 307/2008). This legislation comes into force on 4th July 2010.

This qualification is also suitable for competent Mobile Air Conditioning technicians who have completed a previous qualification, which can include 'in-house' training. Individuals must have a good understanding of components and system operation, to carry out procedures relating to air conditioning systems.

Achievement of this qualification allows experienced MAC technicians (working with cars and car derived vans) to continue to practice after 4th July 2010.

On and after this date, in order to legally recover F-gas (fluorinated greenhouse gas) from air conditioning systems in motor cars and car derived vans, all MAC technicians must have achieved (as a minimum requirement) a refrigerant handling qualification (approved by DEFRA), meeting the EU F-gas regulations.

Individuals should already have a basic knowledge of the operation of Air Conditioning Systems containing fluorinated greenhouse gases in motor cars (and car derived vans), the environmental impact of fluorinated greenhouse gas refrigerants, the corresponding environmental regulations, and procedures for environment friendly recovery of fluorinated greenhouse gases.

In order to pass this qualification, candidates must demonstrate learning outcomes by following and achieving 2 assessment components:

- IMI Practical Assessment
- Carry out procedures for filling AC machine
- Carry out discharge procedure on an AC system
- Recharge an AC system and carry out checks
- IMI Online Test (multiple choice)

The assessment ensures rigour and quality of assessment by measuring the candidates underpinning knowledge, including F Gas regulations.

Duration	1 day
Cost	£195.00 per person



IMI Level 3 Award in Diagnosing, Rectifying and Recalibrating Advanced Driver Assistance System (ADAS) Components

Why choose this course?

The content of this qualification has been designed to give the learners the knowledge and skills required to work safely whilst carrying out diagnostic, testing and repair activities to ADAS sensors and systems. This may include vehicles that have or have had accident damage for wheel geometry adjustments.

It contains two mandatory units ADAS2 and ADAS3.

ADAS2 covers all of the skills and knowledge from IMI Level 2 Award in Advanced Driver Assistance Systems (ADAS) Calibration, and ADAS3 which covers additional knowledge and skills in:

- Working safely when working with vehicle ADAS systems
- Using information and tools to carry out diagnostic tasks
- Understanding how ADAS systems operate as well as vehicle system requirements on the completion of vehicle repairs
- Diagnosing, removing, replacing and recalibrating ADAS systems and components
- Recording information and making suitable recommendations

As a result, Learners successfully completing this qualification will acquire significant core knowledge and skills, and the ability to diagnose a faulty Advanced Driver Assistance System (ADAS), carry out our functioning testing, identify/advise, and rectify ADAS faults.

Duration
Cost

2 days
£430.00 per person

IMI Level 3



IMI Level 4 Award in the Diagnosis, Testing and Repair of Electric/Hybrid Vehicles and Components (QCF)

This qualification has been developed in close liaison with industry specialists, electric vehicle manufacturers, training providers, the health and safety executive and the IMI Sector Skills Council.

This is the first qualification of its kind to address working on live electric/hybrid vehicle high voltage vehicle systems and components. The qualification is essential to ensure the health and safety of individuals working on electric/hybrid vehicles. On completion of this qualification technicians will be able to practically demonstrate that they have the skills required for repairing high voltage vehicle systems and components.

Designed for technicians who maintain and repair electric/hybrid high voltage vehicle systems and components. It contains the knowledge and skills required to work on live high voltage vehicle electrical components and associated systems.

On completion, technicians will be able to practically demonstrate that they have the skills required to repair high voltage vehicle electrical components and systems.

Contains the knowledge of the dangers surrounding repairs carried out to live high voltage vehicle electrical components and systems. The purpose and aim of this qualification is to provide technicians working on electric/ hybrid vehicles with the required level of skills and knowledge to carry out repairs on live high voltage vehicle electrical components and systems safely.

Developed by IMI in conjunction with electric vehicle manufacturers, the health and safety executive, training providers and the IMI Sector Skills Council. It is the first qualification to address live electric vehicle (high voltage) technology. The qualification is essential to ensure the health and safety of individuals working with live high voltage vehicle electrical components and systems.

Assessment: Practical Assessments, oral assessments and written assessment.

**Duration
Cost**

**4 days
£850.00 per person**

IMI
Level
4





Do you wish to join our Independent Garage Network?

Our Independent Garage Network runs quarterly and helps garages across Lancashire get access to the latest updates.

The network takes place in our HEAT facilities, where attendees are given up to date training requirements for the industry and specialist hybrid/electrical equipment showcased.

For more information contact:
HEAT@blackburn.ac.uk.

Call the Commercial & Business Development
Team at Blackburn College on 01254 292500 or
email training@blackburn.ac.uk

