

مواصلات
MWASALAT

معهد مواصلات للتدريب Mwasalat Training Institute Technical Training



City & Guilds

APPROVED
CENTRE

Course

Heavy Vehicle Maintenance & Repair

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Who are the qualifications for?

They are for candidates wanting to develop some of the key skills and understanding in motor vehicle systems.

Successful candidates will have the basic skills needed to apply for an automotive apprenticeship or similar engineering pathway. These qualifications could also be used as an 'interest' course for a wide range of learners.

What do the qualifications cover?

They allow candidates to learn, develop and practise the skills required for employment and/or career progression in the automotive industry.

Is the qualification part of a framework or initiative?

These qualifications are available within the foundation learning framework.

Who did we develop these qualifications with?

These qualifications were developed by City & Guilds in collaboration with the Institute of the Motor Industry (IMI) the sector skills council for the automotive retail industry and other awarding organizations.

Entry Requirements

The applicants who are interested and seeking admission to training programme should:

1. Medically fit
2. Have General Education Certificate or its equivalent
3. Have minimum scores of 4.5 in International English Language Testing System (IELTS) with writing minimum 4 or a TOEFL equivalent or an equivalent international certification
4. Score of 70% in Math exam
5. Score of 70% in I.T exam or successfully completed the ICDL or IC3

(001) Skills in Health, Safety and Good Housekeeping in the Automotive Environment

- 1 Use correct personal and vehicle protection within the automotive environment.
- 2 Carry out effective housekeeping practices in the automotive environment.
- 3 Recognise and deal with dangers in order to work safely within the automotive workplace.
- 4 Conduct themselves responsibly.

**(026/
076) Introduction to vehicle technology and workshop methods and processes**

- 1 Understand the operation and use of workshop equipment.
- 2 Understand the use of tools and measuring equipment; identify joining methods and materials.
- 3 Understand basic electrical principles and basic use of test equipment.
- 4 Understand vehicle construction materials, components, methods and safety features.

**(027/
077) Carry out basic routine vehicle maintenance**

- 1 Understand the purpose of routine maintenance; identify sources of information and regulations; describe the purpose of inspections.
- 2 Understand the basic operating principles, components and features of petrol and diesel engines.
- 3 Understand the basic operating principles, components, features and maintenance requirements of lubrication and cooling systems.
- 4 Understand the basic operating principles, components, features and maintenance requirements of ignition and petrol fuel systems.
- 5 Understand the basic operating principles, components and features of diesel fuel systems.
- 6 Understand the basic operating principles, components and features of clutches and gearboxes.
- 7 Understand the basic operating principles, components and features of driveline and final drive systems.
- 8 Understand the basic operating principles, components and features of steering.
- 9 Understand the basic operating principles, components and features of suspension, wheels and tyres.
- 10 Understand the basic operating principles, components, service requirements and features of brakes.
- 11 Understand the basic operating principles, components, service requirements and features of electrical and electronic systems.

(031) Skills to Support Working Relationships in the Automotive Work Environment

- 1 Work effectively within the organisational structure of the automotive work environment.
- 2 Obtain and use information in order to support their job role within the automotive work environment.
- 3 Communicate with and support colleagues and customers within the automotive work environment.

- 4 Demonstrate good working relationships in the automotive work environment.

(051) Knowledge of Health, Safety and Good Housekeeping in the Automotive Environment

- 1 Understand the correct personal and vehicle protective equipment to be used within the automotive environment.
- 2 Understand effective housekeeping practices in the automotive environment.
- 3 Understand key health and safety requirements relevant to the automotive environment.
- 4 Understand about hazards and potential risks relevant to the automotive environment.
- 5 Understand personal responsibilities.

(081) Knowledge to Support working relationships in the Automotive Work Environment

- 1 Know key organizational structures, functions and roles within the automotive work environment.
- 2 Know the importance of obtaining, interpreting and using information in order to support their job role within the automotive work environment.
- 3 Know where different types of communication within the automotive work environment can be used.
- 4 Know communication requirements when carrying out vehicle repairs in the automotive work environment.
- 5 Know how to develop good working relationships with colleagues and customers in the automotive workplace.

(503) Skills in Inspection Repair and Replacement of Commercial Vehicle Tyres

- 1 Work safely when carrying out removal and replacement activities.
- 2 Inspect commercial vehicle wheels and tyres.
- 3 Carry out the repair and replacement of commercial vehicle tyres, wheels and tubes.
- 4 Carry out tread regrooving on commercial vehicle tyres.
- 5 Record information and make suitable recommendations.

(031) Skills to Support Working Relationships in the Automotive Work Environment

- 1 Work effectively within the organisational structure of the automotive work environment.
- 2 Obtain and use information in order to support their job role within the automotive work environment.
- 3 Communicate with and support colleagues and customers within the automotive work environment.
- 4 Demonstrate good working relationships in the automotive work environment.

(051) Knowledge of Health, Safety and Good Housekeeping in the Automotive Environment

- 1 Understand the correct personal and vehicle protective equipment to be used within the automotive environment.
- 2 Understand effective housekeeping practices in the automotive environment.
- 3 Understand key health and safety requirements relevant to the automotive environment.
- 4 Understand about hazards and potential risks relevant to the automotive environment.
- 5 Understand personal responsibilities.

(003) Skills in supporting job roles in the automotive work environment

- 1 Work effectively within the organisational structure of the automotive work environment.
- 2 Obtain and use information in order to support their job role within the automotive work environment.
- 3 Communicate with and support colleagues and customers effectively within the automotive work environment.

(053) Knowledge of support for job roles in the automotive work environment Learning outcomes

- 1 Understand key organisational structures, functions and roles within the automotive work environment.
- 2 Understand the importance of obtaining, interpreting and using information in order to support their job role within the automotive work environment.
- 3 Understand the importance of different types of communication within the automotive work environment.
- 4 Understand communication requirements when carrying out vehicle repairs in the automotive work environment.
- 5 Understand how to develop good working relationships with colleagues and customers in the automotive workplace.

(004) Skills in materials, fabrication, tools and measuring devices used in the automotive environment

- 1 Select, maintain and use hand tools and measuring devices in the automotive environment.
- 2 Prepare and use common workshop equipment.
- 3 Select materials when fabricating, modifying and repairing vehicles and fitting components.
- 4 Apply automotive engineering, fabrication and fitting principles when modifying and repairing vehicles and components.

(054) Knowledge of materials, fabrication, tools and measuring devices used in the automotive

- 1 Understand how to select, use and care for hand tools and measuring devices in the automotive environment.
- 2 Understand how to prepare and use common workshop equipment.

- 3 Understand how to select materials when fabricating, modifying and repairing vehicles and fitting components.
- 4 Understand how to apply automotive engineering, fabrication and fitting principles when modifying and repairing vehicles and components.

(201) Skills required to conduct routine heavy vehicle maintenance

- 1 Work safely when carrying out heavy vehicle routine maintenance.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out heavy vehicle routine maintenance.
- 5 Record information and make suitable recommendations.

(251) Knowledge of conducting routine heavy vehicle maintenance

- 1 Understand how to carry out routine heavy vehicle maintenance.
- 2 Understand the legal requirements applicable to carrying out heavy vehicle maintenance.

(272) Knowledge of heavy vehicle fuel, air supply and exhaust system units and components

- 1 Understand how heavy vehicle engine fuel systems operate.
- 2 Understand the legal requirements relating to European Emission Standards applicable to commercial vehicles.
- 3 Understand how heavy vehicle exhaust emission control systems operate.
- 4 Understand how heavy vehicle engine air supply and exhaust systems operate.
- 5 Understand how to check, replace and test engine fuel, air supply and exhaust system units and components.

(204) Skills required to remove and replace heavy vehicle chassis units and components

- 1 Work safely when carrying out removal and replacement activities.

(204) Skills required to remove and replace heavy vehicle chassis units and components

- 1 Work safely when carrying out removal and replacement activities.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out removal and replacement of heavy vehicle chassis units and components.
- 5 Record information and make suitable recommendations.

(254) Knowledge of heavy vehicle removing and replacing chassis units and components

- 1 Understand how heavy vehicle steering systems operate.
- 2 Understand how heavy vehicle suspension systems operate.
- 3 Understand how heavy vehicle braking systems operate.
- 4 Understand how heavy vehicle wheel and tyre systems operate.
- 5 Understand the health and safety aspects when working on loaded vehicles.
- 6 Understand how to check, replace and test heavy vehicle chassis units and components.

(262) Knowledge of heavy vehicle transmission and driveline units and components

- 1 Understand how heavy vehicle clutch systems operate.
- 2 Understand how heavy vehicle gearbox systems operate.
- 3 Understand how heavy vehicle driveline systems operate.
- 4 Understand how heavy vehicle gear selection mechanisms operate.
- 5 Understand how to check, replace and test transmission and driveline units and components.

(205) Skills required to inspect heavy vehicles using prescribed methods

- 1 Work safely when carrying out heavy vehicle inspections using prescribed methods.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out heavy vehicle inspections using prescribed methods.
- 5 Record information and make suitable recommendations.

(255) Knowledge of inspecting heavy vehicles

- 1 Understand how to carry out inspections on heavy vehicles using prescribed methods.

(212) Skills required to remove and replace heavy vehicle transmission and driveline units and components

- 1 Work safely when carrying out heavy vehicle transmission and driveline system component removal and replacement activities.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out removal and replacement of heavy vehicle transmission and driveline units and components.
- 5 Record information and make suitable recommendations.

(001) Skills in health, safety and good housekeeping in the automotive environment

- 1 Use correct personal and vehicle protection within the automotive work environment.
- 2 Carry out effective housekeeping practices in the automotive work environment.
- 3 Recognise and deal with dangers in order to work safely within the automotive workplace.
- 4 Conduct themselves responsibly.

(051) Knowledge of health, safety and good housekeeping in the automotive environment

- 1 Understand the correct personal and vehicle protective equipment to be used within the automotive environment.
- 2 Understand effective housekeeping practices in the automotive environment.
- 3 Understand key health and safety requirements relevant to the automotive environment.
- 4 Understand about hazards and potential risks relevant to the automotive environment.
- 5 Understand personal responsibilities.

(003) Skills in supporting job roles in the automotive work environment

- 1 Work effectively within the organisational structure of the automotive work environment.
- 2 Obtain and use information in order to support their job role within the automotive work environment.
- 3 Communicate with and support colleagues and customers effectively within the automotive work environment.
- 4 Develop and keep good working relationships in the automotive work environment.

(053) Knowledge of support for job roles in the automotive work environment

- 1 Understand key organisational structures, functions and roles within the automotive work environment.
- 2 Understand the importance of obtaining, interpreting and using information in order to support their job role within the automotive work environment.
- 3 Understand the importance of different types of communication within the automotive work environment.
- 4 Understand communication requirements when carrying out vehicle repairs in the automotive work environment.
- 5 Understand how to develop good working relationships with colleagues and customers in the automotive workplace.

(004) Skills in materials, fabrication, tools and measuring devices used in the automotive environment

- 1 Select, maintain and use hand tools and measuring devices in the automotive environment.

- 2 Prepare and use common workshop equipment.
- 3 Select materials when fabricating, modifying and repairing vehicles and fitting components.
- 4 Apply automotive engineering, fabrication and fitting principles when modifying and repairing vehicles and components.

(054) Knowledge of materials, fabrication, tools & measuring devices used in the automotive environment

- 1 Understand how to select, use & care for hand tools & measuring devices in the automotive environment.
- 2 Understand how to prepare and use common workshop equipment.
- 3 Understand how to select materials when fabricating, modifying and repairing vehicles and fitting components.
- 4 Understand how to apply automotive engineering, fabrication and fitting principles when modifying and repairing vehicles and components.

(206) Skills required to inspect heavy vehicles to comply with legal requirements

- 1 Work safely when carrying out heavy vehicle inspections.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out heavy vehicle inspections.
- 5 Record information and make suitable recommendations.

(207) Skills in diagnosing and rectifying heavy vehicle engine faults

- 1 Work safely when carrying out heavy vehicle engine diagnostic and rectification activities.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out heavy vehicle engine diagnosis, rectification and test activities.
- 5 Record information and make suitable recommendations.

(208) Skills in diagnosing and rectifying heavy vehicle chassis system faults

- 1 Work safely when carrying out heavy vehicle chassis diagnostic and rectification activities.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out heavy vehicle chassis diagnosis, rectification and test activities.
- 5 Record information and make suitable recommendations.

(255) Knowledge of inspecting heavy vehicles

- 1 Understand how to carry out inspections on heavy vehicles using prescribed methods.

(257) Knowledge of diagnosis and rectification of heavy vehicle engine faults

- 1 Understand how heavy vehicle engine systems operate.
- 2 Understand how to diagnose and rectify faults in heavy vehicle engine systems.

(258) Knowledge of diagnosis and rectification of heavy vehicle chassis faults

- 1 Understand how the heavy vehicle chassis systems operate.
- 2 Understand how to diagnose and rectify faults in heavy vehicle chassis systems.

(263) Knowledge of diagnosis and rectification of heavy transmission and driveline faults

- 1 Understand how the heavy vehicle transmission and driveline systems operate.
- 2 Understand how to diagnose and rectify faults in heavy vehicle transmission and driveline systems.

(406) Skills in diagnosing and rectifying vehicle auxiliary electrical faults

- 1 Work safely when carrying out automotive vehicle auxiliary electrical diagnostic and rectification activities.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out automotive vehicle auxiliary electrical diagnosis, rectification and test activities.
- 5 Record information and make suitable recommendations.

(456) Knowledge of diagnosis and rectification of vehicle auxiliary electrical faults

- 1 Understand vehicle electrical and electronic principles.
- 2 Understand how light vehicle auxiliary electrical systems operate.
- 3 Understand how to diagnose and rectify faults in auxiliary electrical systems.

(261) Knowledge of overhauling heavy vehicle engine mechanical units

- 1 Understand how to overhaul heavy vehicle engine units.

(221) Skills required to overhaul heavy vehicle transmission units

- 1 Work safely when overhauling heavy vehicle transmission units.
- 2 Use relevant information to carry out the task.
- 3 Use appropriate tools and equipment.
- 4 Carry out the overhauling of heavy vehicle transmission units.
- 5 Record information and make suitable recommendations.

(271) Knowledge of overhauling heavy vehicle transmission units

- 1 Understand how to overhaul heavy vehicle gearbox and final drive units.