

## **Plumbing & Domestic Heating Technician Apprenticeship Level 3**

Study Mode: Full Time Programme Component | Course Level: 3

### **Is this course right for me?**

Plumbing and domestic heating technicians plan, select, install, service, commission and maintain all aspects of plumbing and heating systems.

Appliances and equipment can include gas, oil and solid fuel boilers as well as pumps, heat emitters, bathroom furniture or controls as part of a cold water, hot water, and central heating or above ground drainage and rainwater systems, as well as new and exciting environmental technologies like heat pumps, solar thermal systems, biomass boilers and water recycling systems.

Installation of plumbing and heating systems requires accurate skills in measuring, marking, cutting, bending and jointing metallic and non-metallic pipework; as well as excellent customer service skills and being tidy and respectful as they can often find themselves working in customers' homes as well as on building sites.

Plumbing and heating technicians need to be able to work independently or as part of a team and use their knowledge and skills to ensure that both the system and appliances are appropriately selected and correctly installed, often without any supervision, and done so in a safe, efficient and economical manner to minimise waste.

Typical job roles include plumber, domestic heating engineer, domestic heating installer, plumbing and domestic heating installer, plumbing and domestic heating engineer

### **Entry Requirements**

Entry requirement for this apprenticeship will be decided by the employer, however a minimum of a Grade C/4 is required in Maths prior to enrolment.

### **What will I learn?**

#### CORE KNOWLEDGE, SKILLS AND BEHAVIOUR REQUIREMENTS

This programme enables apprentices to develop the core knowledge and skills required to work as a qualified plumbing and domestic heating technician, as well as additional knowledge and skills in one of four specialist areas:

- Fossil Fuel - Natural Gas
- Fossil Fuel - Oil
- Fossil Fuel - Solid Fuel
- Environmental Technologies

#### KNOWLEDGE

Apprentices will develop core knowledge in the following areas:

Health and safety: Understand health and safety legislation, codes of practice and safe working practices.

Core plumbing systems: Understand selection, planning, installation, testing, commissioning and de-commissioning, service, maintenance, fault diagnosis and repair techniques on cold water, hot water, central heating, above ground drainage and rainwater systems.

Electrical components and control systems: Understand installation and testing techniques for electrical components and control systems on plumbing and domestic heating systems.

Plumbing science and processes: Understand scientific plumbing, domestic heating and mechanical principles.

Principles of environmental technology systems: Understand the principles of domestic mechanical environmental technology systems.

Principles of fossil fuels: Understand the principles of fuel combustion, ventilation and flueing arrangements within a domestic environment.

Customer service: Understand the principles of high-quality customer service and establishing the needs of others (colleagues, customers and other stakeholders). Respect the working environment including customer's properties.

Communication: Understand different communication methods, how to communicate in a clear, articulate and appropriate manner and how to adapt communication style to suit different situations.

In addition, apprentices will develop specific knowledge for their chosen specialism:

Fossil Fuel - Natural Gas: Understand the principles of selection, installation, testing, commissioning and service and maintenance techniques on domestic downstream natural gas pipework systems and appliances.

Fossil Fuel - Oil: Understand the principles of selection, installation, testing, commissioning and service and maintenance techniques on domestic oil storage, pipework and appliances.

Fossil Fuel - Solid Fuel: Understand the principles of selection, installation, testing, commissioning and service and maintenance techniques on domestic solid mineral fuel, wood burning and biomass appliances.

Environmental Technologies: Understand the principles of selection, installation, testing, commissioning and service and maintenance techniques on solar thermal, heat pumps and water recycling systems.

## SKILLS

Apprentices will gain core skills in the following areas:

Safe working: Operate in a safe working manner by adhering to health and safety legislation, codes of practice and applying safe working practices.

Core plumbing system techniques: Apply selection, planning, installation, testing, commissioning and de-commissioning, service, maintenance, fault diagnosis and repair techniques on cold water, hot water, central heating, above ground drainage and rainwater systems.

Electrical components and control systems techniques: Apply installation and testing techniques for electrical components and control systems on plumbing and domestic heating systems.

Supervisory skills: Take responsibility for own work and safety and welfare of others. Oversee and organise the programme of work and work environment. Carry out work and manage resources in an environmentally friendly manner.

In addition, apprentices will develop specific skills for their chosen specialism:

Fossil Fuel - Natural Gas: Select, install, test, commission, service and maintain domestic downstream natural gas pipework systems and appliances.

Fossil Fuel - Oil: Select, install, test, commission, service and maintain domestic oil storage, pipework and appliances.

Fossil Fuel - Solid Fuel: Select, install, test, commission, service and maintain domestic solid mineral fuel, wood burning and biomass appliances.

Environmental Technologies: Select, install, test, commission, service and maintain solar thermal, heat pumps and water recycling systems.

## BEHAVIOURS

Apprentices will demonstrate the following behaviours:

Honesty and Integrity: Develop trust with customers and colleagues by undertaking responsibilities in an ethical and empathetic manner.

Dependable and responsible: Show conscientiousness through being punctual, reliable and professional. Take responsibility for own judgements and actions. Aware of the limits of their own competence.

Enthusiasm and positive attitude: Demonstrate drive and energy in fulfilling requirements of role

Quality focus: Be quality focussed in work and in personal standards.

Willingness to learn: Identify own development needs and take action to meet those needs. Keep up-to-date with best practice. Maintain and enhance competence.

Work with others: Work effectively and collaborate with colleagues, other trades, clients, suppliers and the public.

Sustainable working: Consider the appropriate use of resources and own actions taking into account the impact on environmental, social and economic factors.

## How will I be assessed?

A qualified assessor will provide an induction and regular workplace assessments

## What can I do next?

Full time employment in the sector

## Delivery

**Location:** Work-based & College

**Start Date:** 02/09/2024

**Day:**

**Time:**

**Course Fee:**

**Course Code:** X0017

**Study Mode:** Full Time Programme Component

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