

Plumbing & domestic heating technicians size and select, plan and install, service, maintain and commission plumbing and domestic heating systems. All technicians will be required to work on typical plumbing elements such as hot and cold water systems and storage, supplies to dwellings and associated pipework, aboveground pipework, connection to below-ground, sanitary pipework, fittings and furniture. Appliances and equipment can include central heating boilers, bathroom furniture, sanitary appliances, drainage and rainwater systems. At Gloucestershire College, we support technicians to specialise in one of these areas:

Domestic gas-fired hot water heating appliances technician:

Installation and maintenance of domestic natural gas systems and central heating and hot water appliances.

Qualification

City & Guilds Level 3 Plumbing and **Domestic Heating Qualification** and pathway specific qualification on completion of your End Point **Assessment.** This will enable you to register yourself with a regulated body in line with the route you have chosen.

Completers may want to progress to

- Unvented ticket
- Becoming a Business Owner

Domestic air source heat pumps & solar thermal systems technician:

Installation and maintenance of air source heat pumps and solar thermal hot water systems in domestic premises.

Delivery model and duration:

Apprentices will attend college for one day per week. Theory lessons will be reinforced in the workplace and practical skills will be practiced and enhanced in college and the workplace. This can be supported by some remote delivery if required.

Duration: 48 months plus 3 months **End Point Assessment**

Ideal for:

- Plumber
- Domestic Heating Engineer/installer
- Plumbing and Domestic Heating Engineer/installer

The apprenticeship will cover the following core areas:

- Health and safety
- Core plumbing systems
- Electrical components and control system

Benefits to business:

- Nurture loyal and competent members of staff
- Gain employees who have the relevant

- Plumbing science and processes
- Principles of fossil fuels or renewable energy supplies

knowledge and skills to succeed in their role

 Upskill existing members of staff

Entry Criteria:

• GCSEs in English and maths grade 9 - 4 or A*- C

Benefits for learners:

- Receive training from experts with years of industry experience
- · Gain a nationally recognised qualification
- Become occupationally competent
- Advance career aspirations





PLUMBING AND DOMESTIC HEATING TECHNICIAN APPRENTICESHIP LEVEL 3

End Point Assessment

The End Point Assessment will test the entire Standard, and be undertaken as follows:

- Practical Product
- Professional Discussion
- Design Project
- Multiple Choice Exam
- Commissioning of a System

Components

Phase 1, 2, 3, 4 and Level 3 Plumbing and Domestic Heating Qualification prior to end point assessment

Knowledge

Unit	Overview
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 fluing 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

Skills

Unit	Overview
Working Safely	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



