

# Module 01: Introduction to Gas Engineering

## Introduction to the Module

Gas engineers do far more than install and repair boilers; with the proper training, they can work with a wide range of gas appliances in both household and commercial settings, opening the door to a rich and rewarding profession in which no two days are alike.

This module explains the functions and responsibilities of a gas engineer, as well as what makes this a successful career. You will also learn about the abilities necessary to be a successful gas engineer. So, let's get started!

## Learning Objectives

After completing this module, you will be able to:

- Understand what a gas engineer does
- Identify the different appliances that a gas engineer works on
- Harness the skills needed to be a successful gas engineer
- Learn about the qualifications and time needed to become one

## What does a Gas Engineer do?

**Among most people, a gas engineer is a knowledgeable professional who ensures that household gas systems are properly installed and working well.** In more turbulent times, they're even the hero who arrives at inconvenient times, ready to replace a broken furnace in the dead of winter.

A gas engineer, however, accomplishes much more than that. This is a career that will require you to wear many different hats – and one in which you will never be bored with routine, as each job and each day will present fresh difficulties.

**Your role as a gas engineer is to handle gas-related problems in residential and commercial settings, typically under time restrictions.**

It's also a profession that's ideal for folks who enjoy interacting with and assisting others. You will spend a significant amount of time in other people's homes and businesses, generally installing, servicing, and repairing various gas appliances and central heating systems.

**Being a gas engineer is often seen to be a difficult career.** It can surely be difficult. Considering this, seeking out solutions to difficult gas and heating challenges can be extremely fulfilling, and the great compensation and opportunities for growth make this a desirable vocation for ambitious individuals.

## Appliances that Gas Engineers Work On

The majority of people associate gas with their boilers. **Many gas engineers will spend a significant amount of time working on boilers, either installing, repairing, or replacing them.** Aside from boilers, gas engineers can work with a wide range of gas appliances in both residential and commercial settings.

**These appliances could include:**

- Gas fires,
- Gas boilers,
- Gas cookers,
- Central heating systems,
- Hot water storage cylinders,
- And wall heaters, to name a few.

However, before you can operate on any gas appliance, you must be legally registered with Gas Safe, which allows you to work on the kinds of gas appliances for which you have been trained.

**You will be unable to legally operate on devices for which you do not have the necessary training and certifications.** If you want to work on particular types of gas appliances, you should focus on gaining the necessary training and certification.

**Gas engineers maintain their education throughout their careers and can either work on the same equipment or train for different types of appliances.** Through your training as a gas engineer, you will be able to pick which route your career takes – and which devices you want to operate on.

## **A Typical Day of a Gas Engineer**

**As a gas engineer, there is no such thing as a "normal day," making this a suitable job choice for those who don't want to be stuck in a rut.** Typically, you may expect to work from 9 a.m. to 5 p.m., Monday through Friday.

**While getting up at 3 a.m. to fix a gas leak may not be pleasant, employed gas engineers can benefit from overtime compensation from such projects,** while self-employed gas engineers can charge their own emergency costs.

**While you'll most likely be installing boilers, you'll also be repairing gas appliances, repairing gas leaks, and diagnosing gas and energy difficulties.** Your usual day is largely determined by your training and the appliances for which you are trained and registered, which implies that another engineer's usual day may differ from yours.

**A gas engineer's employment requires the ability to provide excellent customer care.** All gas engineers will interact with clients, thus people and communicating skills are essential. You may be required to explain an issue, provide instructions on how to use an appliance, or suggest a substitute appliance.

**Thus, as a gas engineer, you will:**

- install gas appliances and heating systems
- carry out planned maintenance checks on systems and equipment

- test controls and safety devices to make sure they work properly
- respond to emergencies
- find and repair gas leaks, using computerised fault-finding equipment
- replace or repair faulty or old parts
- complete work records
- advise customers on gas safety and energy efficiency

## Required Skills

**The gas industry is growing in this country, and it is also the primary source of energy in the United Kingdom.** Despite this, there is a trained gas engineer shortage in the country, which indicates that this is a career choice that is in high demand not only from gas industry companies, but also from home and commercial consumers.

A career in gas engineering is a wonderful choice if you are searching for a 'job for life' that provides employment stability, a high pay, and numerous opportunities for advancement and professional evolution. **This is especially true for people who excel in math and science.**

It's also a career that provides you a lot of freedom: as a highly trained worker, your experience is priceless. You may opt to begin your career with a corporation but decide later that you would like to be self-employed; others may prefer to specialise in a single sort of device.

To succeed, you will also need some 'soft' skills, such as the capacity to handle your time wisely while tackling sometimes complicated problems, as well as the ability to perform well with others and provide good customer service.

**Whatever career you select, all you need to be successful is the correct training, the right mindset, and a strong desire to do a good job.**

**Thus, you will need:**

- practical skills for repairing and maintaining equipment
- to be thorough and pay attention to detail
- customer service skills
- the ability to use your initiative
- practical skills for installing equipment
- problem-solving skills
- patience and the ability to remain calm in stressful situations
- persistence and determination
- to be able to carry out basic tasks on a computer or hand-held device

## Qualifications Needed

**To work as a gas engineer, individuals must have two industry certifications, both of which are legally required:**

- **ACS in Gas is proof of your training. This evaluates your expertise as a gas engineer; the certificate is valid for 5 years and it must be renewed to persist on the Gas Safe Register.**
- **Gas Safe registered is a UK industry database that shows that you are qualified to work as a gas engineer, as well as which appliances you are trained and qualified to work on.**

**Before you can get these industry qualifications, you must first train – for many individuals, an apprenticeship offering an NVQ or a Gas Managed Learning Programme in a gas-related sector is the best route.**

**Working without such qualifications is against the law.** When pursuing a career as a gas engineer, you should prioritise courses that encompass the training for the devices you want to work with, including such CENWAT (central heating boilers), HTR1 (gas fires), and CKR1 (gas cookers).

**An adult apprenticeship will teach you everything you need to know to clear your ACS exam.** Passing this exam will allow you to enlist the Gas Safe register and begin working on the gas appliances for which you have been trained and qualified. **At this point, you will have the option of starting your own gas company and working as a self-employed gas engineer, or working for one of the UK's many gas companies.**

Both pathways are legitimate, and you should choose the one that best suits you – while you can make more income as a self-employed gas engineer, it's important to remember that working for someone else provides more stability and security. Many people work for someone else before starting a business, and vice versa, so this isn't a hard and fast rule.

**You must be committed to successfully completing each stage, which necessitates hard work and motivation; newcomers with this level of dedication are usually eligible within a year of starting.**

## **Career and Growth**

The skilled professions industries, including gas, are in limited supply in the United Kingdom. **While this employment may lack the glitter of more popular career options, it pays well, even for newly trained and qualified employees.**

Because of the countrywide dearth of gas engineers and the highly-trained nature of this position, newly graduated engineers may expect an average starting pay of £32,000 – £6,000 more than the national average!

**You can expect to earn more money as your career progresses.** An experienced gas engineer can expect to earn around £37,500 per year, with those with even more skill and experience earning up to £60,000.

This national average varies by region. As one might expect, gas engineers in London and the South-East are paid more. Outside of this area, factors such as a local shortage of gas engineers or a town being a regional hub for commerce and industry can push up salaries.

**Wherever you live, a career as a gas engineer provides an attractive salary as well as an interesting and diverse job.** Gas is still the most popular heating option in the UK, which means you'll always have a steady stream of revenue, whether you're employed or self-employed.

In terms of advancement, you could take on supervisory and management responsibilities over a team of engineers. **If you have a lot of experience, you could also start your own gas fitting business.**

**You could apply your transferable engineering skills to work on systems powered by alternative sources of energy such as hydrogen.**

## **Highlights from This Module**

- Among most people, a gas engineer is a knowledgeable professional who ensures that household gas systems are properly installed and working well
- Your role as a gas engineer is to handle gas-related problems in residential and commercial settings, typically under time restrictions
- Many gas engineers will spend a significant amount of time working on boilers, either installing, repairing, or replacing them
- There is no one 'typical day' as a gas engineer, which makes this a good career choice for people who don't want to be trapped in a mundane routine
- To work as a gas engineer, you will need two industry qualifications, both of which are required by law
- Wherever you are located, a career as a gas engineer offers an attractive salary with an interesting and varied job

**Thank You! You have reached the end of this module. See you in the next one.**