

# So, you want to be a Gas Engineer?

A GUIDE FOR NEW ENTRANTS



a career for life

**ATL**  
training for trades

The Professionals' choice since 1992

# Introduction

We all love the convenience of gas-fired central heating, instant hot water and clean cooking. Just imagine life without these creature comforts! Not only do Gas Engineers (also known as Gas Fitters and Installers) make our lives more comfortable, but they have a very, very responsible job too. Gas is safe in the hands of an expert but in unqualified hands the results can be disastrous. People die at the hands of a 'cowboy' Gas Engineer.





## The job

Domestic and commercial Gas Engineers fit gas appliances and piping in customers' homes and business premises. Appliances include gas heaters, cookers, meters and central heating boilers. Gas Engineers also go out to customers' premises to service and repair gas appliances. They carry out routine maintenance and attended to boilers and heating systems that have broken down. They may even install complete central heating systems, undertaking the work of a Plumber. In fact many Plumbers progress to become Gas Engineers.

Gas Engineers test appliances thoroughly, paying strict attention to safety procedures. They diagnose and

repair faults, often on complex appliances and systems. They may test a boiler flue to make sure there is proper ventilation and that dangerous fumes cannot leak into a room. They may dismantle an appliance, clean parts, and repair or replace faulty parts. They also deal with electronic programmers and controls.

Gas Engineers also answer customers' questions, advise them on the most appropriate and energy efficient heating systems and show them how best to use appliances. They may also advise on the purchase of boilers and appliances.

## Lawful requirements

The gas industry is highly regulated and the proper training and qualifications are essential to ensure Gas Engineers work safely and lawfully. By law, all Gas Engineers must be registered on the Gas Safe Register (formally CORGI) and that involves attaining an NVQ Diploma that is aligned to the ACS scheme and/or being assessed for competence under the Nationally Accredited Certification Scheme for Individual Gas Fitting Operatives (ACS).

Every Gas Operative must hold a “core” gas safety certificate for either domestic natural gas or liquid petroleum gas (LPG), or the commercial / industrial equivalents. This will enable them to apply for registration

on the Gas Safe Register, but the core gas safety certificate will only enable them to install, commission, disconnect and repair gas pipe-work in their chosen fuel (natural gas/LPG) and in their chosen sector (domestic/commercial). To be able to do any other work they also need to obtain additional certificates of competence in each and every fuel, sector and area of gas work they intend to undertake. So for example they need another certificate to work on cookers, another to work on gas fires and heaters, another to work on gas meters and so on. And finally each of these certificates has to be renewed every five years in order to prove that the Gas Engineer is still competent and has kept up to date with ever-changing standards and regulations.



# Proper training

Proper training is essential if you want to be a Gas Engineer and to ensure you always work lawfully and safely. There is no short-cut to become a Gas Engineer and there is no substitute for experience either.

You have a number of avenues open to you for training. However it is essential that you follow a properly prescribed course. One that contains all the knowledge and skills you need to do the job properly and safely and which includes all the lawful qualifications too.



First and foremost, you cannot become a Gas Engineer without being employed by, or working with, a Gas Safe registered company or contractor.

An Apprenticeship is the traditional way to train and enter the industry. An Apprenticeship is a work-based training programme, whereby a new entrant is hired by a Gas Safe registered employer while they learn the trade and the government pays for some or all of their training. The great thing about Apprenticeships is you gain real work experience while you learn and you know you are getting the right qualifications needed for the job. Although Apprenticeships have historically been seen as something for young people, there are no legal

restrictions based on age that prevent an adult from taking part in an Apprenticeship scheme.

The alternative to an Apprenticeship is to obtain employment with a Gas Safe registered business / installer who is willing to provide the training and experience that is necessary to gain an NVQ in Gas Services, Installation and Maintenance or to be able to undertake ACS training and assessment at a specialist training centre. The duration and content of the on-site experience that is required to qualify for ACS training and assessment is dependent upon the scope of gas work being undertaken, but somewhere between 70 and 140 days is normal.



Because the entry criteria is strict and requires relevant gas experience, many people enter the gas industry after gaining experience and qualifications in a related occupation such as plumbing or heating and ventilation. It is then much easier to gain employment with, or work alongside a Gas Safe registered contractor.

## Basic qualifications

The industry's preferred qualification for a new entrant Gas Engineer is a Level 2 NVQ Diploma in Gas Services, Installation and Maintenance, such as the City and Guilds 6012 or equivalent. This is the main qualification in a Gas Apprenticeship and is the hallmark of a good career course. To work competently, safely and lawfully you will at the very least need this qualification or ACS Certificates in core gas safety and every appliance and area of work in which you intend to operate.

Carrying out gas related work when unqualified will lead to very heavy fines and if lives have been put at risk then lengthy prison sentences too.



## Qualities needed

To be a gas engineer, you must have strong technical knowledge and skills and an aptitude for mathematics, science and technology. You will need a methodical and patient approach to diagnosing and solving problems and must be able to use a combination of logical and analytical thinking. You must also be committed to keeping up to date with regulations and advances in this fast changing area.



Safety is a very important issue in all areas of gas engineering. You must be highly responsible and must be able to understand and follow safety procedures and legislation at all times, working carefully and with great attention to detail.

You will need self-discipline and good organisational skills to plan your own time and to co-ordinate resources. Willingness to take on responsibility and to lead and motivate others is essential. As is good communication skills. You will be dealing with customers. Sometimes



customers are anxious and worked-up. Their central heating boiler may have broken down in freezing weather or they may be worried about a gas leak or carbon monoxide. You must be able to reassure the customer by being calm, friendly and professional. You will need good listening skills as well as the ability to ask the right questions to find out the customer's needs. You must also have respect for other people's property.

You must be physically fit too. You may have to move and lift heavy appliances, climb up to check a flue and work in small cramped and awkward spaces.

## Earning potential

Forget the stories of earning £100,000+ a year. The average Gas Engineer employed by a company will earn in the region of £25,000-£30,000 after a couple of years experience. A specialist or self-employed Gas Engineer can earn a lot more and £70,000+ is achievable, it all depends on how much time and effort they put in.

## In summary

Becoming a gas engineer will offer you a rewarding future, a full career path leading to professional qualifications, and good pay. No two days are the same - from fixing a cooker to installing a boiler and central heating system.

You could choose to specialise in gas exploration, extraction, treatment, transmission or distribution. Gas Engineers who specialise in gas utilisation gain knowledge of gas burners, plant design, gas supply, combustion, thermodynamics and manufacturing processes. Gas Network Engineers develop whole sections of a gas network. They build computer models, examine plans

taking account of existing buildings, water pipelines and electricity cables. Gas Engineers work on domestic, commercial and industrial projects that offer enormous variety and challenge.

The gas industry is professional, responsible and future proof. As a Gas Engineer you will have numerous choices regarding the type of work you do and the career path you take. Many Gas Engineers also progress to consultancy, teaching and management, making the gas industry a career with a real future. Once qualified, being a gas engineer can also be a passport to work all over the world!

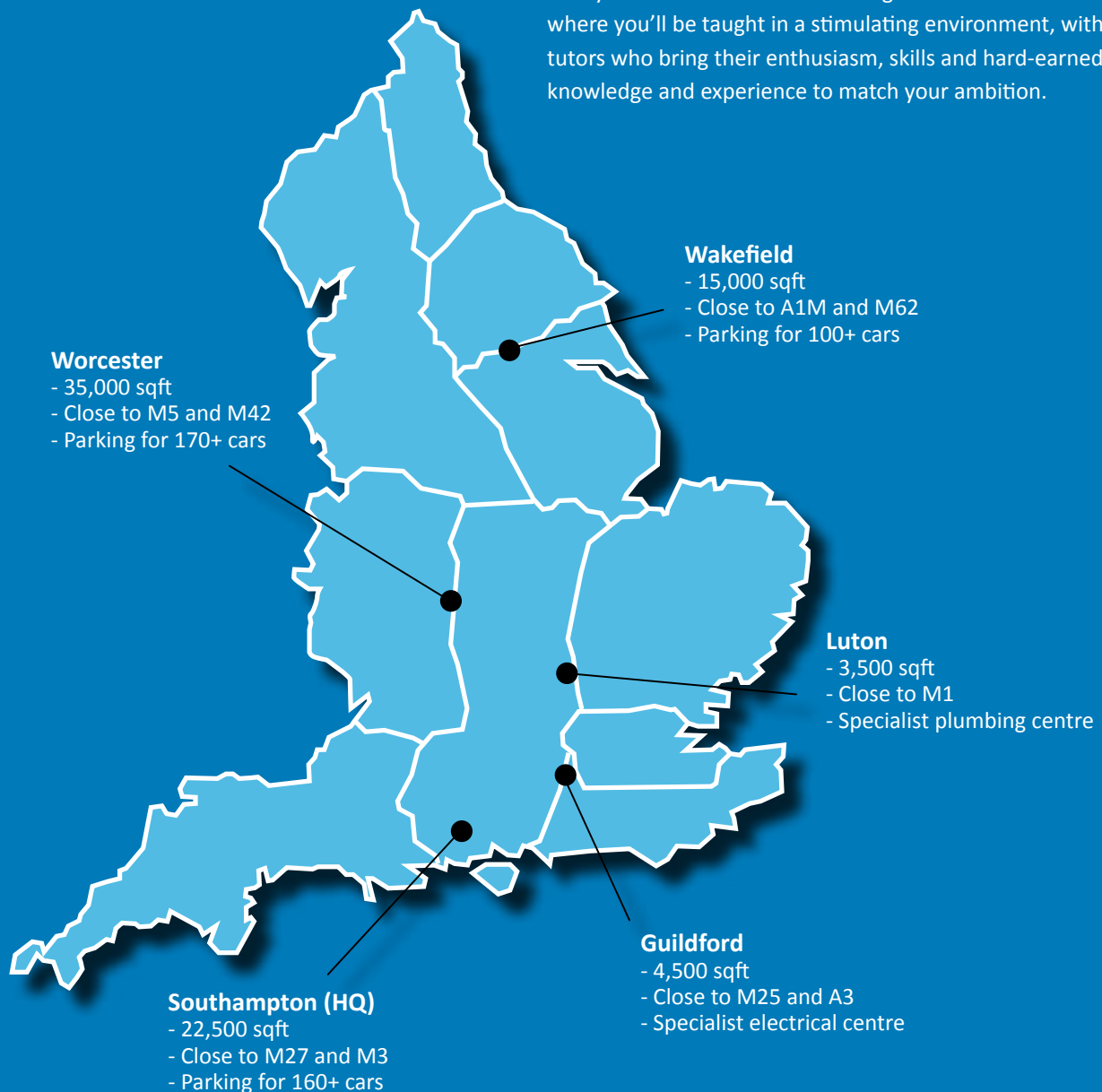


# About ATL

Founded in 1992, ATL is the UK's largest training provider in the area of building services engineering, with centres nationwide. We aim to give people the best chance to be successful in a country that expects its engineers to be highly skilled in an increasingly knowledge-intensive, complex and fast changing environment.

An Ofsted high-achiever, ATL has an impressive track record. All careers programmes benefit from significant vocational and professional content to build confidence and skills, and every course leads to industry recognised skills and professional qualifications. First-time achievement rates for our students are over 95%.

So if you want a career as a Gas Engineer come to ATL where you'll be taught in a stimulating environment, with tutors who bring their enthusiasm, skills and hard-earned knowledge and experience to match your ambition.



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