

## How to become an electrician: a brief overview of training options

*Student's Guide to the Wiring Regulations* author Steven Devine discusses gaining an education and starting your career in the electrical industry.

The electrical industry is vast and there is an ever increasing demand for experts in various different areas. Anyone can see the impact that electricity has on our lives; it's everywhere. One of the many reasons people are drawn to work in the electrical industry is because it offers such a diverse field to work in, and there is always something that is of interest to someone.

### What kind of work is available?

As well as domestic there is also commercial and industrial work. Electricians can be trained to work on high voltage transmission and distribution lines, substation installations, panel building, generators and many other specialist areas. Anything you can think of that involves electricity in some way almost certainly has an electrician that specialises in that area.

If physical work doesn't sound like your ideal career, an office job may be more appealing: you can become an electrical supervisor, authorising engineer, electrical design engineer, manage your own electrical company or, once you have gained experience, you can move into consultancy, teaching, or standards development. This is only a handful of the different career paths you can pursue.

### Education and the electrical industry

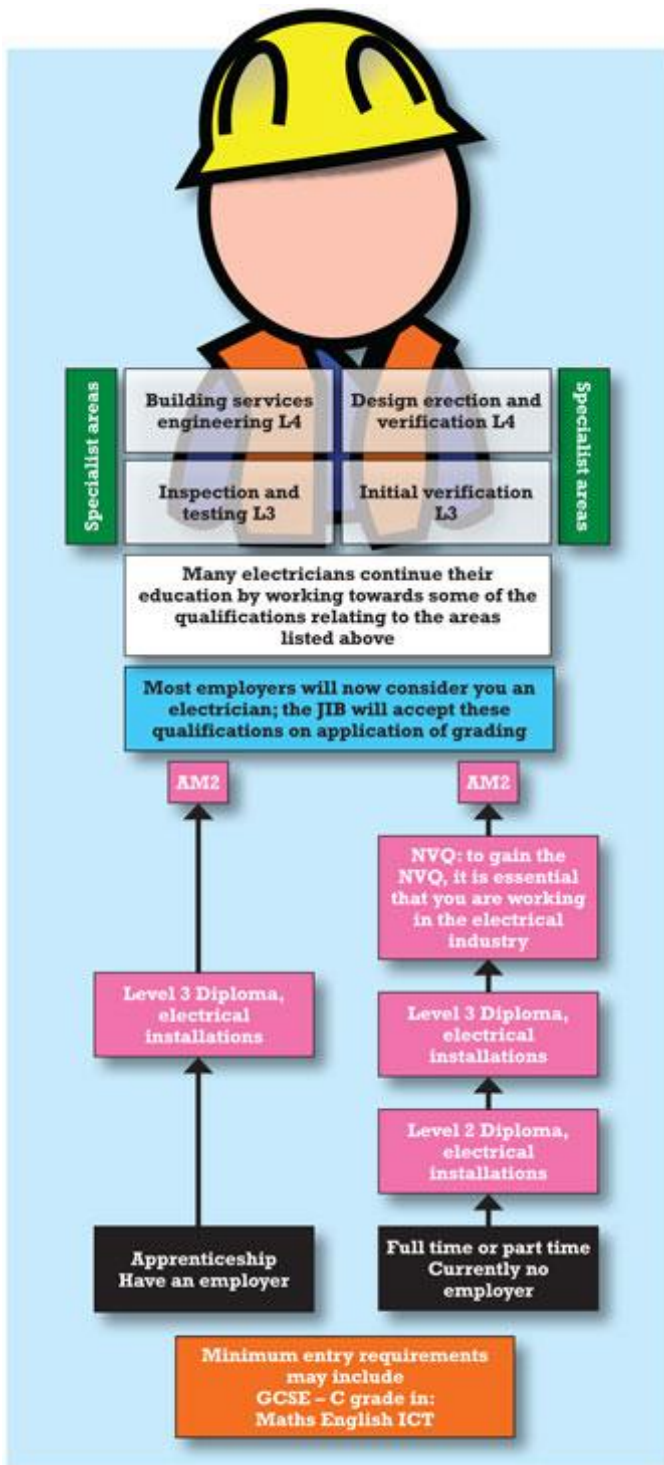
It is essential that anyone working in the electrical industry is adequately trained to do so. Unlike a lot of careers, learning on the job just isn't enough. Electricity is a science, so when you're studying to become an electrician you're studying a science. To be a good electrician you need to have a fundamental understanding of this science. Education will enable you to learn from other people's mistakes, have expert guidance from experienced lecturers and access the resources provided from awarding bodies. A successful assessment at the end of a qualification is just the beginning.



# What are the options available for people who want to pursue a career in the electrical industry?

## Minimum requirements

The minimum requirements for people intending to enrol on any electrical qualification are generally basic maths, English and Information and Communication Technology (ICT) at GCSE grade C or equivalent. Many colleges and learning providers give students the opportunity to gain these qualifications while simultaneously studying an electrotechnical qualification.



## Apprenticeships

Students generally start an apprenticeship at around the age of 16. The level 3 qualification usually runs for around three to four years, possibly extending to five. Any electrical company can employ an apprentice whether it is small or large. Apprentices will gain valuable on-site experience as well as learning the essential science and fundamental principles of electricity while on day release at a college or learning provider. Some larger companies provide in-house training that, in most cases, award nationally recognised qualifications.

## Colour deficiency

When applying for an apprenticeship, students are normally expected to pass a colour deficiency test before being accepted. Students who sign up for full time courses may not necessarily be asked to take the test and may face some difficulty when attempting to transfer their full time course to an apprenticeship.

## Full time courses

Full time courses (usually three days a week) are available to people who have difficulty finding an apprenticeship as the demand for apprentices can fluctuate depending on the state of the economy. There are a number of full time electrotechnical courses available, the most popular ones being the level 2 and level 3 electrical installations courses that can, in most circumstances, be mapped over to an apprenticeship. Students tend to use these full time courses to gain qualifications so that they are more favourable to employers when applying for apprenticeships.

## Part time courses

Part time courses are generally better suited to older students who have a little knowledge of

the electrical industry. Part time courses can be intense as the student will have one day or two evening classes as opposed to three full days, so it's essential that the student can commit to self-studying out of college.

## **Domestic installer**

Domestic installer courses should provide you with the minimum training required to consider registering as a domestic installer. They are popular with people who wish to pursue a career working predominantly on domestic properties. However, if you do embark on a domestic installer course, you would be expected to have sufficient experience of domestic electrical installation work so that you can be confident that the work you carry out is safe and meets the requirements of the latest version of BS 7671 (the IET Wiring Regulations). Some training providers run short courses that may only take several weeks to complete; these are only recommended for people who have already had substantial experience working in the electrical industry.

On successful completion of a recognised domestic installer course you should hold a qualification in line with latest version of BS 7671 (e.g. at the time this article was written, a 17th Edition qualification), such as the C&G 2382-12 as well as an inspection and testing and initial verification qualification, such as the C&G 2394-95. Once you have gained these qualifications, domestic installer scheme providers offer guidance on what you would be expected to know to successfully pass their assessments and register as a domestic installer.

## **What next?**

Many electricians like to have their level of education and experience recognised. One way of doing this is to apply for grading to the [Joint Industry Board \(JIB\)](#), who will assess and review your application and offer you one of several grades. Once someone has reached the status of electrician they have really just begun their career. The next logical steps are to gain qualifications and experience in inspection and testing, initial verification, electrical installation design, project management as well as taking a specific route to specialise in a particular area of the industry.

## **What is the best route?**

Whatever route is taken to pursue a career in the electrical industry it's essential that electricians know what they are doing before carrying out electrical work unsupervised. In such a diverse industry, it's virtually impossible to know everything, but knowing the fundamental principles of electricity and how to work safely with it will secure a long and exciting career.