

Advanced Apprenticeship in Engineering

A Guide for Young People



TDR TRAINING LTD

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WHO ARE TDR TRAINING LTD?

TDR is one of the largest training and development organisations in the North East and is committed to helping businesses improve their efficiency, effectiveness and competitiveness through professional training of employees.

We have a good reputation and over the past 4 years have an excellent success rate for young people completing their apprenticeship.



Working with reputable and approved local engineering companies, we are able to offer young people the opportunity to fulfil their career goals.

We can offer you the opportunity for all of the following:

- **A paid job** with training from day one
- **Qualifications** such as NVQ Level 2, NVQ Level 3, Key Skills and BTEC National Certificate
- Potential for **progression** to National Diploma and Degree level
- **Support** and **encouragement** throughout your advanced apprenticeship by professional, competent and friendly staff.

What are Advanced Apprenticeships?

Quite simply they are **jobs** with **training**.



Key facts

- A job with a real wage
- High level qualifications to at least Level 3
- Combines working with learning
- Can offer an alternative route to further and higher education
- Available across a wide range of engineering disciplines
- A commitment to high quality training

They give young people the opportunity to build up knowledge, skills and experience, learn on the job with an employer, gain nationally recognised qualifications and earn money all at the same time.

Advanced Apprenticeships will cover skilled jobs such as mechanical fitters, electrical fitters, machine setter/operators including computer numeric controlled, welders, fabricators, sheet metal workers and technicians as described on pages 10 to 14. These will require the achievement of a National Vocational Qualification at level 3, together with an appropriate technical qualification

What qualifications will I be expected to achieve?



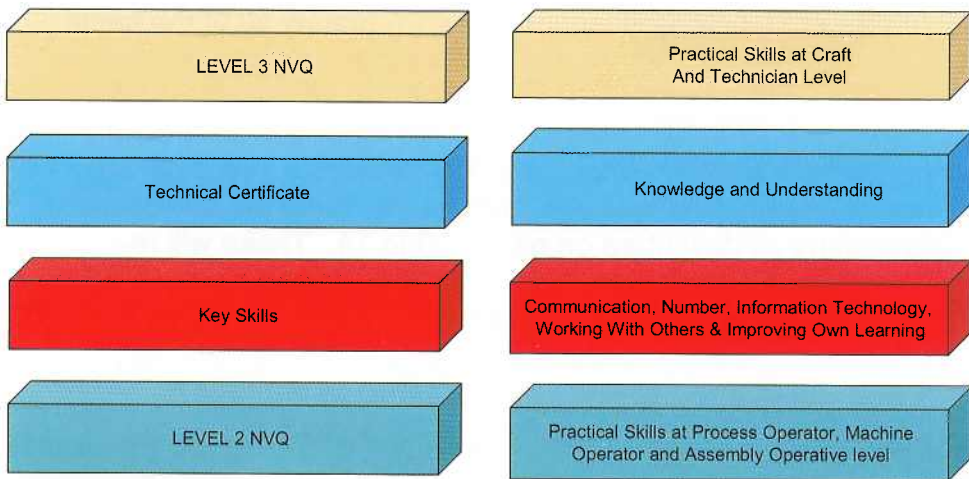
National Vocational Qualifications (NVQ'S) are practical based qualifications and are achieved by completing a series of tasks which are directly related to the job you are doing



Technical qualifications are formal qualifications, possibly requiring a final examination, which will improve the knowledge and understanding required for the job role and could include City & Guilds and BTEC National qualifications in a variety of disciplines.

There are five Key Skill qualifications required at level 2 in communication, application of number, information communication technology, taking responsibility for your own personal development and working with others:

How does this work in practice?



Part of the Advanced Apprenticeship requires an Initial Skills NVQ Level 2 programme which can be delivered entirely in a training centre environment. This period of 'off the job' training can consist of a block release period or a day release from your employer.

NVQ Level 3 programmes are all delivered and assessed in the workplace.

Technical Certificates are normally delivered off the job on a day release basis.



How long will this take?

Most young people complete the Advanced Apprenticeship programme within 3 to 4 years.

What support is provided by TDR?

All of our training co-ordinators are skilled engineers with extensive experience in industry.

One of them will be responsible for your progress and development and we guarantee the following: -

- formal review progressing your NVQ every month.
- a review of your overall progress at least every 12 weeks supported by a detailed report which will include comments from your employer.

Many young people have taken advantage of this route for a career in the engineering sector and are now in supervisory and management roles.



TDR have a recruitment and selection programme which will require you to complete the following: -

- Application form
- External assessments on communications, numeracy, spatial awareness and engineering
- Interview with TDR staff, which will follow normal employer interview techniques and require candidate preparation as described on pages 8 and 9
- Parents evening



On successful completion of the above we would then provide appropriate information to potential employers whose requirements match your interests and arrange where possible employer interviews. Any offer of employment will be conditional upon satisfactory GCSE examination results and where necessary a medical examination if required.

TDR have excellent links with many local employers and continually influence them to recruit apprentices year on year.

Once you have secured a job offer TDR will then arrange your training programme and provide you with an Individual Learning Plan.



Eligibility

- Ideally be aged between 16 and 18, but there may be opportunities for more mature candidates who have either some relevant previous work experience or a strong commitment to a career in engineering.
- Have achieved, or expect to achieve a minimum of GCSE Grade C in a range of subjects, including English, Maths and Science. Prior learning (A-Levels, BTEC qualifications) will be taken into account and may result in exemptions from certain aspects of the advanced apprenticeship programme
- Have the motivation and commitment to successfully complete all of the qualifications required.



Interview Techniques

Here are some interview techniques which may help you with the preparation and your performance at interviews:-

- Find out exactly where the company is located prior to the day of the interview and make sure that your travel arrangements will guarantee you are in the reception area at least 10 minutes before the interview time.
- If you are going to be late for any reason make sure that the employer is informed ideally beforehand but at the very least ring them at the earliest opportunity to apologise and hopefully make other arrangements.
- Always attend for interview in smart clean clothes as first impressions make a significant impact on the selection process.

It would be unwise to attend any interview in fashionable clothes with rips and tears or casual attire such as track suits and sports tops.

- Research the company to find out their background and what they do.

The internet can usually provide this information.

- Take any relevant information with you such as certificates of any appropriate qualifications already gained "Record Of Achievement" and evidence of any practical projects undertaken including samples or photographs if available.

- Listen carefully to the questions asked in order that you can answer them effectively.

Try and use some appropriate technical words but only if you fully understand them as the employer is likely to ask supplementary questions to further test your knowledge on the subject.

Make sure you answer questions to the full as an indication of a good interview is when you do most of the talking.

Do not worry about preparing some questions yourself and taking them into the interview. This could help you impress at the end of the interview as most employers will ask if you have any questions for them.

REMEMBER: Prior Planning Prevents Poor Performance

Examples of Engineering Job Roles

Computer Numeric Controlled Programmer/Operator



Mainly consists of devising CNC programs and operation of equipment for the production of precision machined engineering products:-

Equipment such as:

- Multi axis lathes
- Milling machines

Programming techniques such as:

- Use CAD equipment
- Use of "G" codes
- Use of "Fanuc" codes



Production techniques such as:

- Determining tools/procedures required to produce specified products
- Determining speeds & feeds required to produce specified products
- Manual handling techniques
- Quality Control techniques



Mechanical Maintenance

Mainly consists of installation, examination, testing and maintenance of mechanical plant and equipment.

Usually needs to be conversant with Techniques such as:

- Routine Maintenance tasks
- Pneumatics & hydraulics
- Use of quality and measuring techniques and equipment
- Non Destructive Testing
- Lathe, drilling and milling equipment
- Oxy/gas burning equipment
- Electric welding techniques – MIG, TIG, MMA
- Sawing, shearing & grinding equipment
- Marking out materials using scribes, engineers tri square, points, punches, hammers
- Understanding engineering drawings, company documents and metalworking specifications.
- Manual handling techniques



Electrical Maintenance

Mainly consists of installation, examination, testing and maintenance of electrical plant and equipment :-



Usually required to be conversant with techniques such as:

- Routine Maintenance tasks
- Lighting systems
- Use of electrical harness equipment
- Use of quality and measuring techniques and equipment
- High & Low voltage testing equipment
- Wiring systems & harnesses
- Understanding engineering drawings, company documents and electrical specifications.
- Manual handling techniques



Fabricator/Welder

Mainly consists of forming and joining plate metal by using:-

Mechanical techniques such as:

- Rolling equipment
- Oxy/gas burning equipment
- Electric welding techniques – MIG, TIG, MMA
- Sawing equipment
- Shearing equipment
- Grinding equipment



Manual techniques such as:

- Marking out materials using scribes, engineers tri square, points, punches, hammers etc.
- Understanding engineering drawings, company documents and metalworking specifications.
- Manual handling techniques



Sheet Metal Worker

Mainly consists of forming sheet metal by using:-

Mechanical techniques such as:

- Rolling equipment – forms materials into tubes – cones – rings etc.
- Bending/Folding equipment – forms materials edges – corners – sides – boxes – safety edges etc.



Manual techniques such as:

- Marking out materials using scribes, engineers tri square, points, punches, hammers etc.
- Forming material into shape by using stretching, folding, shaping and cutting techniques
- Joining materials by riveting solid and pop rivets, soldering and welding
- Understanding engineering drawings, company documents and metalworking specifications.
- Manual handling techniques



How Do I Take This Further?

Ring 0191 491 1505 and ask for an application form or visit our website www.tdrtraining.co.uk to apply online, or write to us at the address below.

Most employers start their engineering apprentices between July and October.

The TDR selection process normally starts in February with employer interviews taking place from May onwards.

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