



Apprenticeships in Engineering



Engineering a better future

At a time when the UK is crying out for more skilled engineers, investing in an apprenticeship is a smart move. Many of the innovations which are changing our world today come from people who started out as engineering apprentices.

How we can help

Derby College has a wealth of expertise in recruiting and training apprentices for vital roles across the engineering and manufacturing sectors.

Apprenticeships are an ideal solution not only for young people keen to advance their career prospects but also for employers who want to develop a highly skilled, confident and dynamic workforce.

Benefits for the employer

Apprenticeships deliver real returns to your bottom line, filling your skills gaps while boosting your firm's efficiency and competitiveness. They ensure your workforce has the aptitude and qualifications you need now – and for years to come.

As your training partner, Derby College will help you to achieve:

- Increased productivity and improved performance
- A talented and sustainable workforce for the future
- Cost-effective recruitment of the right apprentice to fit in with your team
- Flexible training to suit your working schedules
- A more motivated, engaged and satisfied team, with lower staff turnover.

With an apprentice, you'll be harnessing fresh new talent, investing in the right skills and nurturing the managers of tomorrow. Apprentices are widely regarded as eager, reliable and loyal to their company.

Benefits for the apprentice

As an engineering apprentice, you'll gain the wide-ranging skills to pursue a rewarding career in making things – or making things work! You will:

- Earn while you're learning, with paid holidays
- Work for a real employer in a real job with training
- Gain a recognised qualification respected world-wide
- Enjoy excellent progression opportunities.

Engineering has an impact on every aspect of our lives – from transport to food, electronics to textiles – so career opportunities are vast. On an apprenticeship, you will build high levels of problem-solving skills, precision, concentration and the ability to act on your own initiative.

The Derby College difference

We have a strong track record in running high-quality engineering courses at all levels. Our intermediate and advanced apprenticeships cover areas such as mechanical and manufacturing engineering, fabrication and welding, business improvement techniques, and warehousing and storage.

Engineering apprentices training at Derby College will:

- Be inspired by industry-experienced teaching staff who have great contacts in the sector
- Benefit from our strong links with major names like Rolls-Royce, Bombardier and JCB
- Learn at our iconic Roundhouse campus: a setting which played a key role in the world's railway and engineering heritage
- Develop skills in our specialist training facilities featuring industry-standard equipment
- Keep up to date with latest engineering technologies, practices and processes
- Have the opportunity to move on to higher level and management programmes.

Gaining an apprenticeship in the engineering and manufacturing sector raises an individual's business productivity by

DID YOU KNOW? **£414** Per Week on average

These gains translate into increased profits, lower prices, better products and higher wages.



Intermediate Apprenticeship in Warehousing and Storage

Number of years: **1**

Location: **Workplace**



Course summary

You will expand your knowledge, gain skills and experience, and build the confidence you need to make a valuable contribution in a warehousing and storage role at work. This course also aids your promotion prospects, as you will be able to take on extra responsibilities.

Entry requirements

Before enrolling on the apprenticeship framework, you need a GCSE grade C or above in Maths and English, or Key Skills in Numeracy and Literacy.

Course content

- Health, safety and security at work
- Developing effective working relationships with colleagues in logistics

How will I be assessed?

The course is delivered 100% in the workplace by a dedicated assessor from Derby College and will include knowledge assessments as well as on-site assessments.

Are there any additional costs or is specialist equipment required?

No

What can I do after the course?

Further study

You could progress to a more advanced course such as the Level 3 in Logistics Operations, which is aimed at developing people for supervisory positions.

Careers

In the ever-expanding area of warehousing and logistics, there are many opportunities for progression. These include roles in planning, supply chain control and co-ordination, team leading, supervision and management.

DID YOU KNOW? **96%** of employers who take on apprentices report benefits to their business



Source: Evaluation of Apprenticeships, BIS, May 2012



Grace Draper

Best of both worlds at Rolls-Royce

At the age of 16, Grace Draper decided to apply for an apprenticeship at Rolls-Royce rather than go on to do A-levels. She's not looked back since.

She has excelled while gaining on-the-job experience with the company and during her training at Derby College, where she has achieved Distinction standards. Now she is set to take her qualifications further with a foundation degree at the College, sponsored by Rolls-Royce.

Such has been Grace's success that she was highly commended in the Manufacturing and Engineering Apprenticeship category of our 2014 Peak Awards. Judges described her as a 'model learner' and praised her collaborative work on projects, where she demonstrated the team skills and personal attributes which are vital in today's engineering industry.

“

An apprenticeship at Rolls-Royce is the best of both worlds. We get to work in all sorts of areas of the company, earning while we're learning. Having completed my first two years of the apprenticeship, I'm looking forward to starting the foundation degree.

”

Intermediate Apprenticeship in Engineering

Number of years: 2

Location: **Workplace and Roundhouse Campus**



Course summary

You will gain a solid skills base in one of two branches of engineering – Mechanical or Fabrication and Welding. The course equips you with the abilities you need to make a valuable contribution at work and to take your career forward.

Entry requirements

GCSE grades D or above are expected in Maths and English. You will also undertake a College interview and assessment.

Course content

On both pathways, you are required to complete:

- BTEC First Engineering – which includes maths, engineering principles and workshop skills
- Performing Engineering Operations
- Functional Skills

How will I be assessed?

You are required to complete a log sheet for practical work, which is assessed and compiled into a portfolio. The Technical Certificate will require an online test. Course assessments include both practical and written tests.

Are there any additional costs or is specialist equipment required?

If you are over 19 years of age, employer contributions will be required towards your training. You will also need safety equipment such as overalls and boots.

What can I do after the course?

Further study

You can progress to the Level 3 BTEC National Diploma in Engineering (QCF) or the Advanced Apprenticeship in Engineering, taking the Fabrication and Welding or Mechanical pathway.

Careers

You can build on the skills gained on this apprenticeship to pursue a broad range of careers in engineering and related industries.

Intermediate Apprenticeship in Business Improvement Techniques

Number of years: 2

Location: **Workplace**



Course summary

Business Improvement Techniques (BIT) and Lean Manufacturing enable organisations to improve products and services by identifying and eliminating wasteful activities. This apprenticeship helps you develop a career in this important field of manufacturing and engineering.

Entry requirements

You are required to complete an interview and basic skills screening in literacy and numeracy to a minimum of Level 1. You must be employed for a minimum of 30 hours per week, with the opportunity to apply BIT tools and techniques in your workplace.

Course content

This apprenticeship framework consists of a practical NVQ and the vocational qualification – or technical certificate – covering the knowledge and understanding you need.

You will also complete booklets in understanding employment rights and responsibilities and will develop your personal, thinking and learning skills. Functional Skills in Maths and English at Level 2 are compulsory.

How will I be assessed?

The assessment will take place both in College and within the workplace. You will complete booklets and assignments and will be observed undertaking real aspects of your job role. Witness testimonies from your tutors and employers will be used to support your assessment.

Are there any additional costs or is specialist equipment required?

There are no additional costs, other than providing your own stationery.

What can I do after the course?

Further study

You will be able to progress to an advanced apprenticeship within the manufacturing or engineering environments.

Careers

This is a practical, work-related programme valued by employers: it was developed in consultation with training associations and industry. It enables you to further your career in engineering, manufacturing and lean manufacturing roles.

DID YOU KNOW?

72% 

of businesses report improved productivity as a result of employing an apprentice

Source: Evaluation of Apprenticeships, BIS, May 2012



ENGINEERING CONTRIBUTES

DID YOU KNOW?



£15

BILLION

to the East Midlands economy

Source: Fact sheet from Cogent, Sector Skills Council for the science industries

Advanced Apprenticeship Engineering Technician

Number of years: up to 4

Location: **Workplace and Roundhouse Campus**



Course summary

This course combines employment with training, giving you the chance to gain skills in the workplace supported by study at College. There are pathways in Manufacturing and in Operations and Maintenance, enabling you to pursue the career route which is best for you and for your employer.

Entry requirements

You need four GCSEs graded A to C, including Maths at higher level, Science and English.

Course content

The programme consists of an NVQ3 taken in the workplace plus a Technical Certificate taken at the College. The Technical Certificate includes:

- Health and Safety in the Workplace
- Communication
- Mechanical Principles
- Electrical/Electronic Principles
- Three specialist units

How will I be assessed?

Internal assessment is in the form of assignments, tests and projects. The NVQ3 is assessed in the workplace with underpinning knowledge questions.

Are there any additional costs or is specialist equipment required?

You will require a scientific calculator, A4 file and drawing equipment.

What can I do after the course?

Further study

You can progress to a HNC or Foundation Degree in a variety of engineering related subjects.

Careers

You can pursue your career to take on more senior roles in manufacturing, operations and maintenance.

Advanced Apprenticeship in Mechanical/Manufacturing Engineering

Number of years: up to 4

Location: **Workplace and Roundhouse Campus**



Course summary

You can specialise in either Mechanical Engineering or Fabrication and Welding on this apprenticeship. It combines employment with training: you will gain practical skills and business improvement techniques in the workplace, supported by study at the College.

Entry requirements

For a Level 3 qualification, you will need to have completed the Level 2 NVQ and Technical Certificate programme. You will require an interview before enrolment on this course. In addition to having Level 2 literacy and numeracy qualifications, you will need to be well motivated and self-disciplined.

Course content

The programme consists of an NVQ Level 3 in Mechanical Engineering or Fabrication and Welding in the workplace, plus a Technical Certificate at College. You will also need to complete Functional Skills in ICT.

The course content will be determined by the specific NVQ and Technical Certificate you are taking.

How will I be assessed?

Internal assessments take the form of practical and knowledge exercises and there is one external multi-choice exam for the Technical Certificate. The NVQ3 is assessed at the workplace, with no formal exam but underpinning questions.

Are there any additional costs or is specialist equipment required?

If you are over 19 years of age, employer contributions towards your training will be required. You will also need safety equipment – overalls and boots – in line with College requirements.

What can I do after the course?

Further study

The progression route is through a HNC or a Foundation Degree in your chosen area. We offer a route through a BTEC Subsidiary Diploma which provides you with the necessary level of maths and science for academic progression.

Careers

With this qualification, you can take on more responsibility and potentially move into supervisory positions at work, whether you are specialising in a mechanical, manufacturing or fabrication and welding role.

Apprenticeships fact file

Whether you're an employer looking to upskill your workforce or an individual considering an apprenticeship, Derby College will support you all the way. We deliver apprenticeships in over 40 industrial sectors.

What are apprenticeships?

They are work-based training programmes designed to give young people valuable work experience while earning a wage. Apprentices gain the job-specific skills they need to carry out their role competently and to meet the needs of their employer. They work alongside experienced staff to gain relevant skills on the job and attend College – usually for one day a week – working towards a recognised qualification and improving their Functional Skills.

Who are they for?

They are open to anyone over the age of 16 not already in full-time education – whether just leaving school, starting a fresh career or moving into a different role that requires new skills. Employers can use them to train new and existing employees alike.

How are they developed?

Apprenticeships are designed by the Sector Skills Councils, working with employers to develop course content that is relevant and up to date. The National Apprenticeship Service helps to fund the training.

How long do they take?

Our Intermediate Apprenticeships last 13-25 months and Advanced Apprenticeships last 12-48 months.

Where do they take place?

It is up to the employer. Most or all of the training is on the job in the workplace at times to suit the organisation. Most Derby College apprenticeships include a day a week of College-based learning.

What qualifications do they lead to?

Our apprentices gain a Level 2 or 3 NVQ, Functional Skills, and a Technical Certificate which shows they have industry-recognised skills.

What are Functional Skills?

All apprentices must develop Functional Skills that support them in their job, including Communication and Application of Number. They may also take other Functional Skills such as ICT, Working with Others and Problem Solving. Depending on the apprentice's existing qualifications and experience, they could be exempt from some of these.

What are the apprenticeship levels?

1. Intermediate Apprenticeships (equivalent to five good GCSE passes). The apprentices work towards work-based learning qualifications such as an NVQ Level 2, Functional Skills and, in some cases, a relevant knowledge-based qualification.
2. Advanced Apprenticeships (equivalent to two A-level passes). Advanced apprentices work towards work-based learning qualifications such as an NVQ Level 3, Functional Skills and, in most cases, a relevant knowledge-based certificate. To start this programme, apprentices should ideally have five GCSEs (grade C or above) or have completed an Intermediate Apprenticeship.
3. Higher Apprenticeships. Higher apprentices work towards work-based learning qualifications such as an NVQ Level 4 and, in some cases, a qualification like a Foundation Degree.

What does the College contribute?

A dedicated College representative works closely with employers to:

- help them decide which apprenticeship is right for them
- explain how apprenticeships might help them and if funding is available
- agree a training plan with the apprentice

- help recruit an apprentice or support existing staff into apprenticeships
- manage the training and evaluation to nationally recognised quality standards.

What does an employer contribute?

As well as a minimum of 30 hours a week employment, the employer must give the apprentice clear terms and conditions of employment and an induction into their role. Derby College can give advice on such issues. Employers are also responsible for paying apprentices' wages, based on the National Minimum Training Allowance.

Is there help with funding?

Funding towards training is available from the National Apprenticeship Service. The contribution varies depending on the sector and the age of the candidate. If the apprentice is aged 16–18 years, the employer will receive 100% of the training cost; if they are 19-24 years old, they will receive up to 50%; if they are 25 years old or over, any contribution depends on the employer's sector and area. Employers may also be eligible for the National Age Grant of £1,500.

Is there help with recruitment?

Derby College offers a free recruitment service matching the right candidate with the right apprenticeship vacancy. For vacancies daily, see www.derby-college.ac.uk/apprenticeships

How do I find out more?

Call **0800 028 0289** or visit www.derby-college.ac.uk

Employers can also request our detailed guide to apprenticeships. See www.derby-college.ac.uk/apprenticeships-employers



DERBY college

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This publication is available, on request, in Braille and large print. Please call 0800 028 0289 for your copy.

All details contained within this publication were correct at the time of going to print.
Special thanks to the staff and learners who agreed to be photographed for the publication.

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