

Thinking of a career in **engineering**

Everything we need or use involves engineering. It's at the cutting edge of technology, very diverse and crucial to our economy. There are a variety of jobs at different levels in various branches, such as aerospace, automotive, telecommunications, electrical and electronics, manufacturing, mining and mechanical.



connexions

LEICESTER SHIRE

Is this YOU?

- Interested in maths, science, design and technology
- Like doing practical things and working with your hands
- Good at solving problems
- Interested in understanding how things work
- Like working in a team
- Would like a job where things change and develop all the time

If so...

You could be well suited to a career in engineering, or a related sector such as building and construction.

Getting in and moving on...



Jobs

You can enter engineering at operator level with no qualifications and training might be given on the job.

Apprenticeships

Apprenticeships are the main training route into craft and technical level engineering. You will need GCSEs in subjects like maths, science or design and technology.

Further education (FE)

You can enter engineering as a junior engineer by studying at a local college or sixth form after Year 11. Courses vary from general qualifications, such as AS or A levels in Design and Technology to specific areas, such as BTECs in Electrical and Electronic Engineering.

Higher education (HE)

To become an incorporated engineer you can study a relevant three year full-time or four year sandwich degree. Or, you can do a Foundation Degree, a HNC or a HND plus further learning to bring your qualification up to degree level. Chartered engineers work at the highest level of planning, designing and managing projects. You can become a chartered engineer with an MEng, or by following a BEng with an accredited masters degree or further learning.

Self employment

A lot of people dream of running their own business within this industry. Like in any sector, being self employed is very competitive and comes with a lot of risks. It's a big step to take, and a lot of researching and planning is needed. It isn't something that a lot of people go straight into after finishing school — most people gain experience of the industry first as an employee.

The training given to engineers is broad based and you can move from one branch of engineering to another. You will also learn transferable skills, such as team work and communication, which will be useful in any job.

Local a

- Engineering jobs at the top of the list for the next ten years, with a high demand for skilled trades.
- However, the demand for some jobs is falling and it's estimated that...
- As there is a high percentage of people who will retire in the next few years, a number of jobs have been identified as a...

Ro

Level

7 to 8

6

4 to 5

3

2

1

Vac

Trainee electric engineer

needed by a pump company in Leicester. The jobs involve national...

£3.53 to £...
hour

Myth buster

Girls don't go into engineering do they?

Yes they do! 20% of the workforce are women.

International

Numbers employed

trends

certain levels are expected to decline over with a loss of 150,000 jobs. Over half of these es.

d for higher level engineering skills will increase, at 230,000 additional jobs will be needed by 2014.

percentage of older workers in the industry, who will y years, new recruits will be needed. Locally, engineering has sector, which will be more likely to recruit 16 years olds.

Around 1.4 million p engineering across th of these are f

Locally, there is a st of engineering and ove are employed in the ma within Leicester and

Jobs in and up

Qualifications	Examples	Jobs	Pay	
Masters Degree Post graduate certificates or diplomas	PhD Doctorate	MSC production development engineering PG environment engineering	Engineering director Chief engineer Technical manager Principle engineer	£40,000+ a year
Honours Degree Management certificates or diplomas	BEng or MEng electronics and communications engineering BEng or MEng manufacturing engineering	Electrical engineer Manufacturing engineer	£17,000 rising to £50,000+ a year	
Foundation Degree Management certificates or diplomas HNC	HND NVQ level 4 NVQ level 5	Foundation degree electrical and electronics engineering HND operations engineering	Incorporated engineer Project leader	Starting from £22,000 a year
A levels BTEC National Technical certificates	Advanced Diploma NVQ level 3 Advanced Apprenticeship	Maths and physics C&G engineering systems maintenance	Engineering technician CAD Draughtsperson	£12,000 to £40,000 a year
Higher Diploma GCSEs at grade A* to C BTEC First Diploma	C&G level 2 NVQ level 2 Apprenticeship	NVQ 2 welding and fabrication	Welder	£12,000 rising to £20,000 a year
Foundation Diploma GCSEs at grade D to G	Diploma NVQ level 1	Foundation Diploma in engineering	Electronics assembler	£11,000 to £16,000 a year

Vacancies in Leicestershire

<p>Electrical engineer</p> <p>needed by fast growing engineering company in Market Harborough</p> <p>£4.73 per hour</p>	<p>Apprentice engineer</p> <p>needed by fast growing engineering company in Market Harborough</p> <p>£3.53 to £5.73 per hour</p>	<p>Apprentice design engineer</p> <p>needed by a Loughborough based mechanical engineering company</p> <p>£3.53 to £5.73 per hour</p>	<p>Welders</p> <p>needed by a Coalville based global business providing power systems for use on land, at sea and in the air</p> <p>£12,000 to £15,000 per year</p>	<p>Production supervisor</p> <p>needed by Hinckley based mechanical engineering company</p> <p>£30,000 per year plus benefits</p>
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people work in
the UK and 90%
full-time.

strong tradition
for 30% of workers
in manufacturing sector
Leicestershire.

Jenny's story...



Jenny is a motor vehicle technician at a garage in Leicester. On a typical day she will service and repair vehicles, talk to customers about their vehicles, diagnose faults, order parts and price up jobs. She works 8am to 5pm Monday to Friday and 8am to 12 noon on Saturdays. During the course of her work she uses a variety of equipment, including hand tools, heat guns, air tools and a diagnostic machine.

How she got there...

While Jenny was at school she used to help out at a garage on Saturday mornings, answering the telephone, processing bills and booking services and MOTs. She also did two weeks work experience in a garage workshop. Jenny left school with five GCSEs at grade C and above, including maths, English and science. Having decided that she preferred the garage workshop to the office, Jenny did a BTEC National Diploma in motor vehicle engineering at college. The course took two years and at the end of it, Jenny started her current job. She is really enjoying her job and, having been at the garage two years, is earning £12,000 a year. Over the next few years this is likely to rise to £16,000 a year.



Employer profile

Brush Transformers Ltd, based in Loughborough make power transformers for the UK utilities and petrochemical industry worldwide and employ around 240 people.

Their markets include the electricity supply industries worldwide, the oil/petrochemical, coal, steel and rail industries.

The company offers a five year Apprenticeship programme which allows young people to gain both practical skills and academic qualifications. Each year they recruit an average of six apprentices.

Looking for ... Courses

CourseFinder is the main place to go to find information on local courses and other learning opportunities for 14-19 year olds. Log on to it at www.coursefinder-leics.org

Jobs and Apprenticeships

- check out www.connexions-leics.org/opportunities or call into your local Connexions centre.
- check out the Leicester Mercury every Wednesday or other local papers.
- Find addresses of local engineering companies and send them your CV with an accompanying letter or email.
- Ask around friends and relatives about vacancies where they work.
- Contact your school work experience employer to ask about vacancies.
- Go to www.apprenticeships.org.uk to register with the National Apprenticeship Service.

Quiz

- 1 Which of the following is not an engineering job?
A Welder B Mechanic C Blacksmith
- 2 How many years did Jenny study her BTEC National Diploma in motor vehicle engineering?
A 1 B 2 C 3
- 3 Which of these GCSE subjects would it be useful to have if you want to apply for an engineering apprenticeship?
A Design and technology B Maths C Science
- 4 How many employees does Brush Transformers employ?
A 50 B 240 C 2,000
- 5 What percentage of people are employed in engineering in Leicester and Leicestershire?
A 30% B 75% C 15%

Checklist



I need to:

- ➔ Visit www.coursefinder-leics.org to find out about information on courses, apprenticeships and other training opportunities in and around Leicester and Leicestershire.
- ➔ Visit www.connexions-leics.org/work/ to find out more on jobs and training.
- ➔ Check out www.connexions-leics.org/opportunities or call into my local Connexions centre for job and training vacancies.
- ➔ Research different careers using www.connexions-direct.com/jobs4u
- ➔ Use the 'Routes in and up' grid to see what the different routes are to a dream job! Different qualifications are taught using different learning styles, so I need to decide what suits me best.
- ➔ Use **Kudos** – a career matching software program – to find out what jobs my skills and interests are best suited to. Kudos may be available in my school, college or training provider. It is also available in all Connexions centres.
- ➔ Speak to my Connexions adviser for advice about my options and where I can find more information.



Useful websites

- ➔ www.connexions-leics.org – useful information about careers, courses, qualifications, work and training.
- ➔ www.apprenticeships.org.uk - everything you need to know about becoming an apprentice.
- ➔ www.connexions-direct.com/jobs4u - a database of information about hundreds of jobs.
- ➔ www.coursefinder-leics.org – search for courses, qualifications and training opportunities for 14-19 year olds in Leicester and Leicestershire.
- ➔ www.engineeringdiploma.com/ - the official Diploma in engineering website.
- ➔ www.ingeniuty.org.uk – information about engineering and technology careers and qualifications.
- ➔ www.scenta.co.uk – engineering technology job vacancies, careers information and news.
- ➔ www.euskills.co.uk/ - case studies of people in the energy and utilities industries doing real jobs.
- ➔ www.ecitb.org.uk - information on careers and training opportunities in engineering.
- ➔ www.semta.org.uk – information from the Sector Skills Council about engineering careers and qualifications.

Where we are...

Leicester

91 Charles Street,
Leicester LE1 1HL
Phone: 0116 262 7254

Coalville

5 Hotel Street,
Coalville LE67 3EQ
Phone: 01530 812231

Hinckley

51 Castle Street,
Hinckley LE10 1DA
Phone: 01455 632719

Loughborough

7 Fennel Street,
Loughborough LE11 1UQ
Phone: 01509 214002

Market Harborough

2 St Mary's Road
Market Harborough LE16 7DU
Phone: 01858 462309

Melton Mowbray

22a Burton Street
Melton Mowbray LE13 1AF
Phone: 01664 569966

South Wigston

50E Blaby Road, South Wigston,
Leicester LE18 4SD
Phone: 0116 277 8090

Connexions

how we can help you and
where you can find us

Connexions Leicester Shire can give you information, advice and practical support with careers, education, training and jobs to help you make the right choices, fulfil your potential and have a better life and future. Find your Connexions adviser in school, college or at your local Connexions centre.

Visit us at
www.connexions-leics.org

Alternative Formats

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www.connexions-leics.org

