

Your Chances in Engineering

What is engineering?

There are all sorts of things that you can do in engineering. In Northumberland you might be manufacturing metals such as steel and iron or designing an engineering system to carry out a specific task. You could be responsible for testing the blades on a wind turbine or for exploring new technology that will harness the power of the waves. You might be testing a remotely operated underwater vehicle or looking at ways to lay underwater cables. You might even use your knowledge of engineering to help with the manufacture of pharmaceutical products and medicines.

People work in engineering at all levels, ranging from crafts people who operate machinery and carry out assembly work, to professional engineers who use their experience to manage projects.

If you like maths and science, enjoying finding solutions to problems, have good practical skills and can communicate well with other people then a job in engineering could be for you.

What qualifications do I need?

The qualification you need depends upon the type of job you want to do. An **engineering technician** will earn more money than a **craft-trained person** but will need to be more highly qualified. In the same way, a chartered engineer will be on a bigger salary than a **technician**, but will again have achieved more qualifications.

Many jobs will require job related training so you could begin with a full-time course or by working towards a National Vocational Qualification (NVQ) on an apprenticeship.

If you are serious about a job in engineering you will need a **grade C or above in English, maths and science**. Work based learning providers will ask you to take an aptitude test to assess your literacy, numeracy, mechanical ability and spatial reasoning. If want to take on a **management role** you need to work towards a degree in engineering and gain other professional qualifications.

A new qualification is being introduced into schools and college called a **Diploma**. A Diploma in Engineering will be available at Ponteland Community High School, Prudhoe Community High School, Queen Elizabeth High School, Haydon Bridge Community High School and Berwick-upon-Tweed Community High School from September 2009. Colleges in the north east will also be offering the Diploma. To find out more, talk to your Connexions PA.

What's my chance of getting a job?

The engineering industry employs around 12,000 people in Northumberland of which over 9,000 are men. About 93% of the workforce is employed on a full-time basis.

Most engineering companies in Northumberland are small with 67% employing less than five people. There are some larger firms in the county; about 7% employ between 25-49 workers but only 2% employ more than 250 members of staff.

Most people employed in engineering live in the Blyth and Wansbeck areas. There are some opportunities in Berwick-upon-Tweed and Tyne-dale but if you live in Alnwick or Morpeth you may have to travel to find work or broaden your ideas.

A number of engineering firms offer good apprenticeship schemes in Newcastle upon Tyne.

Pay

As an apprentice your rate of pay may vary from £80-£110 per week depending upon your type of job and your employer. By 21 years of age a craft-trained person could earn £400-£500 per week.

The more qualifications you get the better your earning potential. As a graduate you could earn £17,000-£19,500 a year on starting work.



How do I get experience and training in Northumberland?

You could train for an NVQ Level 2 through an apprenticeship. Work based learning providers will expect you to progress quickly to NVQ level 3. Entry requirements are a grade C or above in GCSE English, maths and science. **You will be lucky to find an apprenticeship with grades D and below.**

Local colleges offer a range of engineering courses at different levels, for example:

- Introduction to Engineering — no entry requirements
- First Diploma in Engineering — 3 or 4 GCSEs at grades D-G
- National Diploma in Engineering — 4 or more GCSEs at grades A*-C

e2e (Entry2Employment) can provide you with tasters in engineering whilst helping you get ready for an apprenticeship.

Girls

In Northumberland 2,900 women work in the industry representing 24% of the workforce. However, more and more girls are being encouraged to apply.

See www.wisecampaign.org.uk for more information.

Where will I find vacancies?

In engineering there are very few opportunities if you have no qualifications. Most work based learning providers expect you to already have an employer to train with so you should approach employers directly about vacancies.

Try to find an apprenticeship by networking with friends and family. Some employers, especially the larger engineering firms, advertise apprenticeships on their company website. You may need to travel as some are based in Newcastle upon Tyne.

Overall, engineering is a growing industry and there are opportunities for people with the right qualifications. Check regularly with your Connexions Centre to keep up to date on vacancies.

How can I improve my chances of getting a job in Northumberland?

Contact local engineering companies and ask if they would be willing to take you on as an apprentice. If you can't find an apprenticeship straight away consider a full-time college course or work experience. Use the opportunity to gain engineering knowledge or to impress an employer.

It's also worthwhile being prepared to broaden your ideas. Even within one type of engineering there are many different job titles to consider. Some may be familiar to you, such as machinist but others may not, e.g. an armature winder.

Be willing to travel because there are 2,100 engineering/manufacturing companies in the region which together employ approximately 65,000 people. Overall engineering is booming in the North East of England.

Useful contacts for more information

Connexions Northumberland Tel: (01670) 798 180

www.connexions-northumberland.org.uk

Northumberland College Tel: (01670) 841 200 www.northland.ac.uk

Newcastle College Tel: (0191) 200 4000 www.ncl-coll.ac.uk

Tyne Metropolitan College Tel: (0191) 229 5000

www.tynemet.ac.uk

Rolls Royce North East Training Centre www.rrnetc.co.uk

Training and Development Resource Limited (TDR)

apprenticeship opportunities www.tdrtraining.co.uk/advanced.html

North East Chamber of Commerce

Contact: Paul Livingstone Tel: 0800 195 7373 www.necc.co.uk

British Engines Limited - apprenticeship opportunities

www.bel.co.uk/vacancies.aspx

Siemens - apprenticeship opportunities

www.apprentice.siemens.co.uk

BEST - opportunities in building engineering services training

www.best-ltd.co.uk

SummitSkills - The Sector Skills Council for Building Services

Engineering www.summitskills.org.uk

NaREC - opportunities in engineering www.narec.co.uk

The Northumberland Business Directory - good for lists of local

employers www.inorthumberland.co.uk

Yell.com - good for lists of local employers.