



# Engineering

## @ UTC Sheffield City Centre

**Do you enjoy solving problems and designing? Do you always want to know how things work? Then Engineering at UTC Sheffield is for you!**

Engineering is a combination of science and maths used to solve real-life problems. There are lots of different types of engineers who work in all sorts of places - offices, laboratories, hospitals, hi-tech manufacturing, to name a few. You could be improving the performance of new tennis rackets, helping to develop artificial limbs or working in a team to help a community recover from a natural disaster.

The Engineering specialism at UTC Sheffield will provide you with the knowledge and skills to work across this diverse and growing sector. You will learn in state-of-the-art facilities including mini-factories that simulate the real manufacturing environment, high-spec prototyping workshops and sophisticated machine suites – working on challenges set by employers that will stretch you and build your industry skills.



# What job could I get?

Below are a few examples of the many jobs available within the Engineering sector which need young talented people with technical and scientific skills:

## Aerospace Engineer

As an aerospace engineer you will design, build and maintain aircraft with the parts and instruments that go into them. You will be working at the forefront of technology.

## Design Engineer

You will research and develop ideas for new products and systems used to make them, as well as improving existing products. You will use computer-aided design software and you might be working on the redesign of a mobile phone, developing high-performance sports textiles or designing new motorcycle parts.

**More Career Ideas:** Marine Engineer, CNC Programmer, Mechanical Engineer, CAD Design Officer, Architect, Clinical Engineer, 3D Printing Specialist, Manufacturing Supervisor, Electrical Engineer...

## Civil Engineer

If you enjoy designing and building then civil engineering could be for you. You would plan, design and manage a variety of construction projects. You could work on everything from bridges and tall buildings to transport links and sports stadiums.

## Nanotechnologist

As a nanotechnologist you will design and build devices on a tiny scale. You could work in areas such as robotics or medicine, pushing the boundaries by thinking small.

**The average salary of an engineering and technology graduate is nearly 20% higher than across all sectors**

## Useful Links

For more job profiles visit:

- [nationalcareersservice.direct.gov.uk](http://nationalcareersservice.direct.gov.uk)
- [tomorrowsengineers.org.uk](http://tomorrowsengineers.org.uk)

For information on the role of engineering in today's society visit: [engineeringuk.com](http://engineeringuk.com)



# Employer-led projects

As a UTC student you will get the unique opportunity to work on projects set by employers, including companies such as Rolls-Royce and Siemens.

You could be working with virtual reality software to design the latest prosthetics limbs with Sheffield Hallam University, or working with The University of Sheffield's Advanced Research Centre with Boeing using your innovation skills to come up with new ideas. Engineering commissions, competitive challenges and manufacturing commissions will form the base of many of your projects.

Previous UTC employer-led projects have included working on components for global

operator AESSEAL which supplies over 100 countries with mechanical seals. The students have also shown their high-tech skills with Newburgh Precision, one of the UK's leading contract manufacturers.

Students have also worked with ex-Formula 1 engineer Dan Fleetcroft from PES Performance, designing golf clubs. As a UTC student this could be you... designing race cars or working on a project set by Jaguar Land Rover.

## These are just some of the employers you'll be working with:



Advanced Manufacturing  
Research Centre



Innovation in Practice



Lavender  
International



Rolls-Royce



Sheffield  
Hallam  
University

SIEMENS



# How to apply

You can join UTC Sheffield in  
Year 10 and Year 12.

Entry to the UTC is free and non-selective. UTCs are government-funded.

There are no entry requirements for Year 10. For details of how to apply and our Y12 entry requirements, visit our website.

A Level choices are tied to specialisms and therefore timetabled in specific locations (City Centre or Olympic Legacy Park) but there may be opportunity for flexibility. Please contact us to discuss your A Level choices if you are interested in A Level options across institutions.

**For details of how to apply, visit our  
website: [utcsheffield.org.uk/apply](https://utcsheffield.org.uk/apply)**

**We encourage everyone who wishes to apply to  
come to one of our showcase and taster events.**

To check dates and book your place,  
visit: **[utcsheffield.org.uk/events](https://utcsheffield.org.uk/events)**