

Engineering

It's in everything



Engineering. A career that's made for you

Engineering is all around us. It's in the phone in your hand and the shoes on your feet. It's in sub-sea pipelines and supersonic planes, towering skyscrapers and nano-technologies. It's even in the perfectly-baked cupcake (ovens don't heat themselves). And it's engineers who make it all possible – just try imagining a world without them. Find out more about engineering and engineering careers at <http://engineergirl.wes.org.uk>



Meet the Students

Hannah Chemical Engineer



"I'd really love to work in the pharmaceutical industry or automotive industry; the pharmaceutical industry, as I would like to give a helping hand in supplying medical aid, and the automotive industry as it lacks female engineers on a large scale."

I was inspired to study Chemical Engineering because I saw a gap in the market for engineers especially female engineers and decided to rise to the challenge. I also enjoyed studying Chemistry and Maths.

On my Chemical Engineering course we do all types of work from hands-on projects to designing plants. For me the laboratory work is the best as I get a chance to work with my friends and explore different types of equipment."

Rosie Mechanical Engineer



"I studied Maths, Physics and Drama A Level. I'm a farmer's daughter and a practical individual. I always got the benefit of technology to a business, but drama was my first love at school and preferred choice for study. My Physics teacher was always telling us stories about the jobs his friends were doing that made me think 'Wow!' and shifted my thoughts to engineering and made me see what else I could do. I also saw a leaflet from Engineers Without Borders which made me realise how engineering can help the developing world, so I researched into courses to find the things I liked doing."

Izzie Mechanical Engineer



"I'm an artist at heart. My parents work in the NHS and always wanted to be doctors - they found it hard to understand how I didn't know what I wanted to do. A friend's dad had suggested engineering, but I wanted to draw. On results day I got great grades in Maths and Physics and suddenly realised that's what I'd do. Engineering is Maths and Art. It's perfect. I balance my course with my love of art, spending my spare time capturing the views around Cardiff and socialising."

Kashaf Chemical Engineer



"I was inspired to study Chemical Engineering because I had a discussion with a lecturer at Aston University who told me about the benefits. I realised that the course isn't designed just for boys and that there is so much potential with a Chemical Engineering degree. After graduation you can go into almost any field."

On my course we work together as a big group, there's no division within the people on the course, you can turn to anyone for help. Students on the course are always helpful and the lecturers are always available.

I'd really love to work in the energy industry when I graduate."



Time for... Engineering Girls

<http://engineergirl.wes.org.uk>

"I started with BAE Systems in 2006 as an Advanced Technical Apprentice after finishing my GCSEs. I now work in Production Engineering, helping to make the manufacturing of Eurofighter Typhoon helmets more straightforward, working with the operators in production."

I love that every day is different and watching the technology evolve is fascinating. I love engineering because it's constantly changing and diverse.

Outside of work I'm a qualified diver and have helped as a volunteer with marine surveys around Fiji. I also sing in a rock band, Charlie and the Stone Age Heroes."

Charlotte Tingley



Production Engineer, BAE Systems

"I joined the nuclear industry with Sellafield Sites on their graduate programme. Chemical Engineering seemed a bit daunting but now I'm in industry I'm not expected to know everything. I'm learning lots on the job and applying and reinforcing everything I studied. I love being part of a big team and gaining experience across different parts of the business. Every piece of work I get involved in is different. This requires me to adapt and step outside my comfort zone. It's not always easy but once the job is done you feel a real sense of achievement."

Outside of work I enter dance competitions and have participated in acts at the London Palladium and Hackney Empire Theatre."

Neruja Srikantharajah



Lead Process Engineer, Sellafield Sites

"The beauty of engineering is that its basic principles span across many different areas: communications, structures etc. The variety has helped me stay interested."

I'm proud of my contribution to the sustainable regeneration of Central Saint Giles, London, one of the first city centre projects with a site-wide biomass heating system, extensive green roofs, and recycling of rainwater and grey water.

I'm really interested in water and sanitation for underdeveloped and developing countries, have travelled to Ghana to look into developing mechanised systems, and recently went over to Mozambique to work with Water Aid.

I have a degree in Engineering Design and appropriate technology and a Master's in Innovation and Design for Sustainability."

Yewande Akinola



Environmental Services Engineer, Arup

"My work is investigating how movement and forces in joints are affected by osteoarthritis."

I've always loved to find out how things work, even while at school I was designing and making things and thinking of ways to improve them. I love working with surgeons and physiotherapists to help understand more about the impact of surgery on a patient.

Patients that I see are analysed using Three Dimensional Motion Analysis, Dynamic Fluoroscopy (which is like video X-ray), and Image Registration, to measure how joints are performing."

In my spare time I volunteer for the Discover! Club for girls, sharing my passion for medical engineering. We set problems like creating a device for a person with no fingers to enable them to write and pick up a cup and crisps, all of which require very different movements."

It's lots of fun and gives great insights into what you can do with an engineering degree."

Gemma Whatling



Medical Engineer, Cardiff University

Meet the Engineers