WHY IT MATTERS...
MANUFACTURING & PRODUCT DESIGN ENGINEERING

Loughborough University

Emma Robertson

Industrial Design Engineer

I'm glad I chose to study Product Design Engineering (PDE) as it gave me an insight into several different areas of engineering.

PDE has been really relevant to my role as an Industrial Design Engineer – I have been able to apply some of the knowledge and design methodologies I learnt about at university.

I have also been back to Loughborough to do a guest lecture to PDE students.

Post 16 Education	**Higher Education**
AS Level Photography A Levels Maths, Physics & Geography	MEng Product Design Engineering

Why did you choose Product Design Engineering?

I didn't always know I wanted to be an engineer.

At school I enjoyed maths, art, science and design technology and wanted to go into a career where I could combine these subjects – this is when I started to look at engineering.

I decided to go to university, and it was from going to a lot of engineering open days that I found the Product Design Engineering course to be a perfect fit for what I wanted to do – it combined all of my favourite subjects, allowed me to use my creativity and was both practical and theoretical.

Product Design Engineering is a mix of mechanical, product design and manufacturing engineering – it's a really well-rounded engineering course that covers a lot, from core engineering principles to ergonomics/human factors to CAD (Computer Aided Design). The focus is on the fit, form and function of products, rather than focusing on just one of them. It gives you a solid understanding of engineering and design which can lead to a wide range of different careers.

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Emma's experience as a student

I loved everything about my time at Loughborough University – as well as graduating with an engineering degree, I really enjoyed the university experience and made many friends for life. I chose Loughborough because it's a great choice for studying engineering and I loved the campus. I lived in Telford Hall in my first year and was on the Snowsports committee.

Engineering courses tend to have a lot of contact time each week (I had a lot of lectures and labs) but I found this helped me stay more focused, whilst still leaving me plenty of time for socialising and skiing!

Career

I am now an Industrial Design Engineer at global engineering company Renishaw, where I focus on optimising the fit, form and function of our products, from precision measurement devices to metal 3D printing machines. Some of my day to day activities include sketching out ideas and concepts, looking at how people use products, design development and 3D modelling (CAD). I really enjoyed my studies at university and wanted to find a career where I could apply a lot of what I had learnt on my course and be a part of the product design/engineering process.

I joined the engineering graduate scheme at Renishaw as it gave me the opportunity to do different placements around the company, and it was during this time that I found that the Industrial Design Engineer role had the mix of product/industrial/mechanical design engineering that I was looking for.

Emma's advice: If you aren't sure what you want to do after you leave school – have a look at the subjects you enjoy and your hobbies, and see if there are any careers that link in with them. Don't worry about finding the perfect career first time! If you are determined that you want to do something, carry on and never give up despite what others may say – this is about what you want, your future is your choice. If you are thinking about engineering: engineering is exciting and it is for everyone - ignore the stereotypes as they aren't true!

Loughborough University offers degrees in

Manufacturing Engineering / Product Design Engineering / Design / Industrial Design / Product Design and Technology

Please note: Degrees and their titles change over time. Some of these graduates may have studied degrees that have evolved and changed in response to changes in demand from employers.