

The Course

Unit 1: Technical Principles - External Exam (30%)

Unit 2: Design and Making Principles - External Exam (20%)

Non-examined Assessment (50%)

This course offers you the opportunity to develop essential skills such as planning and communication, and will help you to manage complex technical problems. It is recommended by Russell Group universities for anyone who is planning to apply for a degree course in Engineering or Architecture as well as a range of other creative subjects.

Product Design allows you to explore ideas of originality, to question and challenge, to envisage what could be done. In the first year you will undertake focused tasks to develop practical, graphical and analytical skills and learn about a wide range of contemporary issues including:

- **Materials, applications and performance characteristics**
- **Modern industrial and commercial practice**
- **Design communication**
- **Digital design and manufacture**
- **The requirements for product design and development**
- **Potential hazards and risk assessment**
- **Responsible design for manufacture, maintenance, repair and disposal**
- **Protecting designs and intellectual property**
- **Enterprise and marketing in the development of products**
- **How technology and cultural changes can impact on the work of designers**
- **National and international standards in product design**



The majority of the second year is devoted to exploring a project of your own choice. Throughout both years you will make industrial visits to well-known companies such as Morgan and MINI. Students have also recently explored local injection moulding and aluminium casting manufacturers to gain a greater understanding of these types of production.

Why choose Design and Technology?

Most students go on to university to study Engineering, Product Design, Industrial Design, Architecture, Set Design or Fashion. Engineering is in high demand and there are many opportunities for sponsorship or apprenticeships.

The course is academically demanding and is excellent preparation for life at university. It offers many rewarding and interesting career paths. Engineering is the fourth most common subject taken at university amongst the top 250 FTSE CEO's after Economics, Business and Law.



We have a dedicated computer aided manufacture room equipped with commercial facilities such as 3D printers, a 3D router and laser cutters. This is complimented by excellent ICT, wood and metal workshop facilities. We offer teaching on CAD/CAM and you will learn to utilise industry standard software such as SolidWorks in your portfolio.

What type of projects do students undertake?

Students choose their own design briefs and have undertaken some innovative projects in recent years. Several students have entered their work in to national competitions and been invited to display their pieces at the finals of the Triumph Design Awards or the Technology Design & Innovation Challenge. Students have created a variety of products including contemporary furniture, medical aids, lighting, a land yacht, sporting equipment, and many more.

What do I need to study Design and Technology?

A minimum Grade 6 in GCSE Design and Technology is required and a Grade 7 is strongly recommended.

A Level subject video available here: <https://youtu.be/Jnmarr1Quzw>

