



ENGINEERING



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What the Course Covers

Core Engineering Principles:

Students gain knowledge in areas like engineering mathematics, health and safety, and principles of mechanical and electrical systems.

Practical Application:

Courses often involve hands-on experience in workshops for manufacturing products and using computer-aided design (CAD) software to create 3D models.

Industry Awareness:

The qualifications emphasize industry relevance, with content often including quality systems, commercial principles, and design briefs for real-world scenarios.

Technical Skills:

Students develop skills in areas like microcontroller systems, electronics, and additive manufacturing.

Enrichment Opportunities

Hands-On Workshops: Visit places like The Crystal for design and technology experiences or participate in in-school STEM activity kits from providers like Neon - Brilliant inspiration.

Industry Visits: Tour real engineering sites and facilities, such as the Silverstone Museum to learn about motor racing technology or meet with Rolls-Royce STEM Ambassadors near their sites.

Large-Scale STEM Events: Attend The Big Bang Fair, the UK's largest celebration of STEM for young people, to get a glimpse into the future of STEM-related careers.

Related Higher Education Courses

If you wish to specialise further, you can study degree-level courses in various engineering branches, including:

Aerospace, Biomedical, Civil, Chemical, Computer, Electrical.

BTEC - Level 3

Residential Opportunity

Global trips:

Destinations like Geneva are known for STEM-focused visits, offering a chance to see engineering in an international context. Geneva and CERN.

City-based experiences:

Trips can be organized to cities, such as London and New York City offering specific engineering or technology points of interest, even if not a direct focus.



Cross rail/Elizabeth Line and the Thames Barrier.

Future Careers

Based on future trends, high demand for engineers in the UK will be focused on fields related to net-zero carbon emissions, automation, and digital technology. Significant skills shortages are expected across key sectors, such as offshore wind, nuclear energy, hydrogen and carbon capture and electrical vehicles creating ample opportunities for new talent..

Work Experience Opportunities

Examples of Providers include:

Rolls-Royce: Offers work experience for students to showcase the breadth of their work.

Siemens and Jaguar Land Rover: Are also companies that offer similar opportunities.

ENGAGE, ENABLE, EMPOWER