

Engineering Level 3 (BTEC)

Why study Engineering BTEC?

Engineering offers such a wide range of opportunities post A level study. Past IKB students have found employment through apprenticeships in both the private and public sector, including degree level apprenticeships where the employer pays for you to go to University. Private sector work could include manufactured products for the domestic and industrial market for example in the local aerospace or railway industries. Working in the public sector may involve designing systems, such as public information points and lifesaving equipment used by services such as the police, hospitals, fire and ambulance. The Engineering BTEC can be used alongside A level subjects for example Maths or Product Design, to go on to University where past IKB students have studied subjects like robotics, mechanical engineering or product design. Some students prefer to use their BTEC qualifications to go straight into employment in developing designs in CAD.



What will I study?

There will be a considerable amount of written work, calculations and some practical tasks. Some assessments will take the form of a report or presentation. A small amount of work will be the machine based where you will gain skills and knowledge of secondary forming techniques such as milling, turning or the creation of a drawings using 3D CAD.

Unit 1 Engineering Principles

Unit 2 Delivery of Engineering Processes Safely as a Team

Unit 3 Engineering Product Design and Manufacture

Unit 4 Applied Commercial and Quality Principles in Engineering

Unit 10 Computer Aided Design in Engineering

Unit 5 A Specialist Engineering Project

Unit 39 Modern manufacturing systems

Unit 41 Manufacturing Secondary Machining Processes

Unit 42 Manufacturing Primary forming techniques

Unit 9 Work Experience in the Engineering Sector

Study trips, visits and events

Work placement once a week for 12 weeks

Design museum London

CERN, Geneva to see large scale precision engineering

GKN – composite materials, or other local companies.

Why I chose

“I chose to study BTEC Engineering at IKB, because it is an industry related subject. In addition, the equipment offered to us as students it is great, offering us the chance to work freely and creatively. The school also offers a chance to work in a real engineering environment, through work placements to allow us to have a better understanding of how the real world works. At placements you meet colleagues, who study similar subjects, develop social and team working skills that will help you make friends more easily.”



Did you know?

Karl Benz created the first motor car in Germany in 1889. It covered just over half a mile at nine miles per hour. People have been driving Mercedes Benz cars ever since – usually slower than nine miles an hour in rush hour traffic. But actually 180 years before, in 1711, Christopher Holtum demonstrated a horseless carriage. It gave demonstrations under the piazzas at Covent Garden and travelled at five or six miles an hour.

