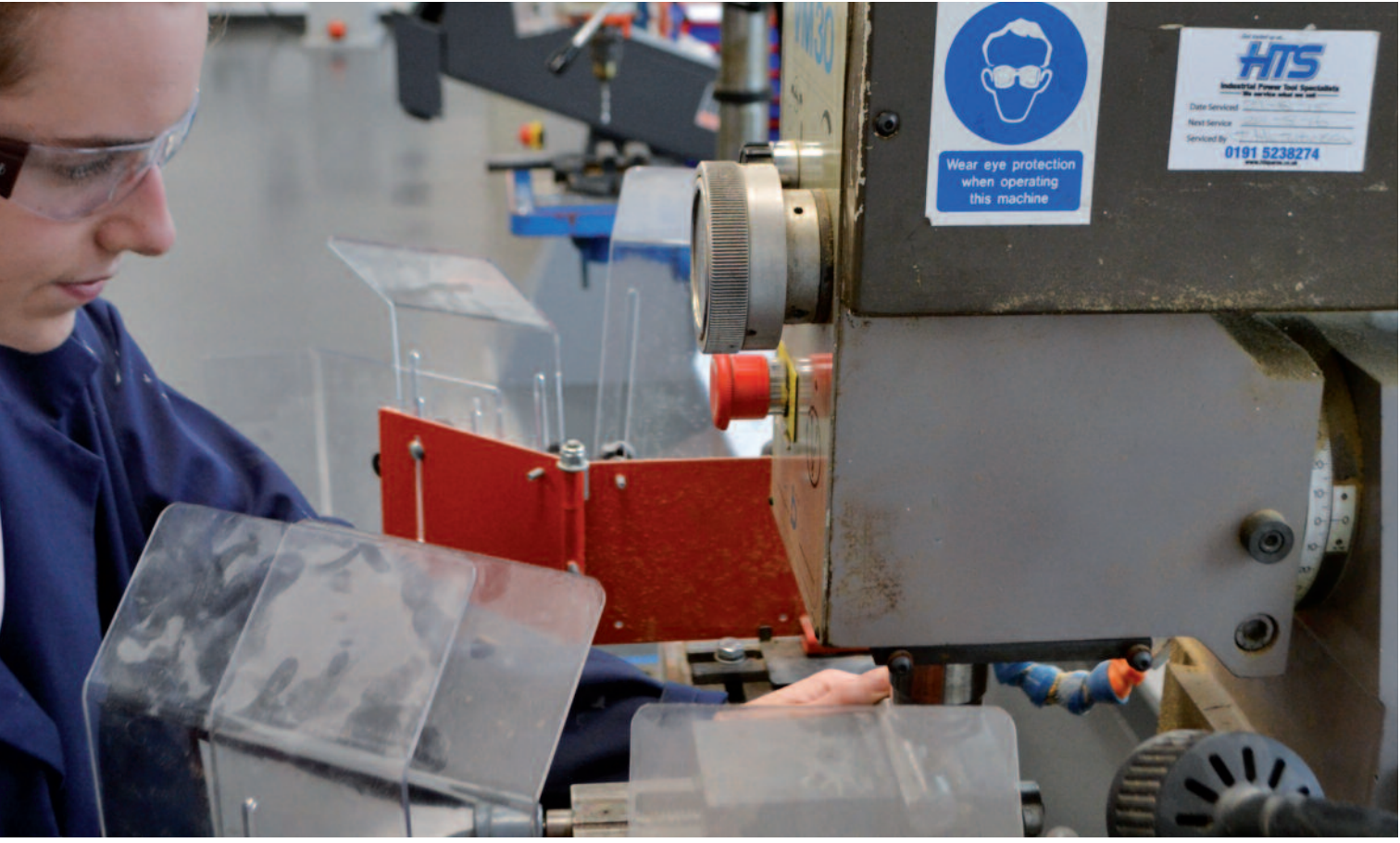

Engineering

Engineering is the field that is constantly changing the world with inventions and solutions that affect everyone's lives.

Offered as a single award qualification, pupils undertake three compulsory modules and an optional unit covering a range of technical skills and industrial practices.

Compulsory units

Unit 1 is a two-hour examination. The 80 mark paper is made up of a mixture of mathematics and physics questions which focus on engineering principles and their applications within given design scenarios.

Unit 2 is an internally assessed project based team engineering task. Learners must work together, communicating effectively to complete the design and manufacture of a specified product considering effective people management, health and safety and appropriate material and process selection.

Unit 3 is externally assessed through a set task completed under supervised conditions. Learners are given a case study to prepare two weeks in advance before a supervised period of ten hours where they will follow a standard development process interpreting a design brief, generating initial ideas, preparing a design proposal and evaluating it against appropriate design and engineering requirements.

Optional units

A range of optional units are available and are selected in order to focus the needs of the cohort undertaking the course. Areas which can be covered include undertaking a specialised engineering work placement where the learner chooses a field of specific interest related to their chosen career pathway, computer aided design and manufacture, welding, machining processes and fabrication.

Opportunities

The breadth of this course means that the full range of engineering career options are available to learners including telecommunications, aerospace, space technology and exploration, civil engineering, architecture, robotics, automotive design, construction, marine engineering and many more.