

product design

A Level Product Design

Exam Board: AQA

Course content

The course involves designing solutions to problems and producing prototypes to test your designs. It develops practical understanding, imagination, technique and creative ability and the use of CAD/CAM. These are attributes vital to the Product Design, and wider design industry. It is important that you are enthusiastic, self-motivated and interested in all areas of 3D design.

Core Technical Principles

Materials and applications, extensive understanding of materials, equipment, processes, adhesives, finishes etc. Comparative tests for mechanical properties of materials, product development and improvement, inclusive design, ergonomics and anthropometrics, design, illustration and communication, Computer Aided Design (CAD) and Computer Aided Manufacture (CAM), virtual modelling, rapid prototyping processes, efficient use of materials, safe working practices, legislation and impact on designing and making, health and safety in product manufacture, feasibility studies protecting designs and intellectual property, enterprise and marketing, historical influence and design movements, developments in technology and product life cycles, environmental issues, approaches to project management.

Assessment

This is a linear two year course. At the end of the second year there are two written papers. There will be a coursework project which is worth 50% of the A level qualification.

Paper 1 (30%)

2 hour written paper (100 marks). Core technical principles and core designing and making principles. A mixture of short answer, multiple choice and extended responses.

Paper 2 (20%)

2 hour written paper
Specialist knowledge, technical and designing and making principles.
A mixture of short answer, multiple choice and extended responses.

Section A:

Product Analysis. Up to 6 short answer questions based on visual stimulus of product(s).

Section B:

Commercial Manufacture. Mixture of short and extended response questions.

Non Examined Assessment (Coursework) (50%)

Practical application of technical principles, designing and making principles and specialist knowledge. Assessment is based on the development of a substantial design and make task worth 100 marks. This task is recommended to be completed in approximately 45 hours.

Progression:

Students often go on to study Product Design, Engineering or Architecture at degree level or equivalent. Engineering or trade apprenticeships can also be supported by an A Level in Product Design.

Entry requirements:

GCSE level 5 or above in GCSE Design Technology. For this course it is recommended that you also have at least a 5 in GCSE Maths.