Curriculum Statement

Year 12 and 13 - Design and Technology
2025 – 2026

CLAIRES COURT
SIXTH FORM

Your place to *aim high*

Design and Technology (D&T)

Introduction

EDEXCEL A Level Design and Technology – Product Design (9DT0)

The A level Design and Technology course is designed to offer students opportunities to study, propose and realise solutions closely linked to the modern world of product manufacture in a range of material areas. Recognising the routes that are pursued at GCSE this specification provides candidates with opportunities to continue their studies working with a combination of materials.

- During this course students will be able to recognise design needs and develop an understanding of how current global issues impact on today's world.
- At A level students will have the opportunity to innovate and produce creative design solutions with the involvement of a client or end user.

Areas of study

The EDEXCEL Level 3 Advanced GCE in D&T Product Design consists of one externally examined paper and one internally examined design and make component.

Content overview

Component one: Written examination

(9DT0/01)

- Topic 1: Materials
- Topic 2: Performance characteristics of materials
- Topic 3: Processes and techniques
- Topic 4: Digital technologies
- Topic 5: What influences the development of products?
- Topic 6: Effects of technological developments
- Topic 7: Potential hazards and risk assessment
- Topic 8: Features of manufacturing industries
- Topic 9: Designing for maintenance and a cleaner environment
- Topic 10: Current legislation
- Topic 11: Information handling, modelling and forward planning
- Topic 12: Further processes and techniques.

Component two: Design and make project

(9DT0/02)

Students will:

- Identify a real design problem and design context
- Develop a range of potential solutions which include the use of CAD and evidence of modelling

- Be expected to make decisions about the designing and development of a prototype in conjunction with the opinions of a client or end user
- Realise one potential solution through practical making activities with evidence of project management and plan for production
- Incorporate issues related to sustainability and the impact their product might have on the environment
- Be expected to analyse and evaluate design decisions and outcomes for prototypes products made by themselves and others
- Be expected to analyse and evaluate wider issues in DT, including social, moral, ethical and environmental impacts.

Mastery

Students who show mastery during the A-Level Design and Technology course will be well-prepared for a variety of careers in engineering, product design, architecture, and other fields. They will also be able to think critically and creatively, and solve problems effectively. They will:-

- Demonstrate knowledge and understanding of the principles of design and technology. This includes understanding the role of design and technology in society, the different stages of the design process, and the properties and uses of materials.
- Be able to apply design and technology skills to solve problems. This includes being able to identify problems, generate ideas, develop solutions, and evaluate the effectiveness of their solutions.
- Be able to communicate their design ideas effectively. This includes being able to draw, sketch, model, and write about their designs.
- Be able to work independently and as part of a team. This includes being able to manage their time, work to deadlines, and collaborate with others.
- Be able to use a range of technology to support their design work. This includes being able to use CAD software, 3D printing, and other digital tools.

In addition to these general skills, they will also be able to:-

- Design and make products that are both functional and aesthetically pleasing.
- Use materials and resources efficiently.
- Consider the environmental impact of their designs.
- Innovate and come up with new and creative solutions to problems.
- Communicate their design ideas effectively to a range of audiences.

Assessment overview

Component one: Written examination

(9DT0/01)
- Two and a half hours
- 50% of A level
- 120 marks.

The paper will include calculations, short-open and open-response questions as well as extended writing questions focused on:
- Analysis and evaluation of design decisions and outcomes, against a technical principal, for prototypes made by others
- Analysis and evaluation of wider issues in design and technology, including social, moral, ethical and environmental impacts.

Component two: Design and make project

(9DT0/02)
- Assessed and marked by the student's school teacher and moderated by a group of examiners
- 50% of the A level
- 120 marks.

The students will independently produce a substantial 'design, make and evaluate' project which consists of a portfolio and a prototype. The portfolio will contain approximately 40 Google Slides.
There are four parts to the assessment:
- Part one: Identifying and outlining possibilities for design
- Part two: Designing a prototype
- Part three: Making a final prototype
- Part four: Evaluating own design and prototype.

For further information please contact:

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