# KS5 | Curriculum Construction

THE WALDERSLADE & GREENACRE SCHOOLS PARTNERSHIP

## Qualification type / Exam Board

BTEC National Extended Certificate / Pearson

## What will I learn about?

The Extended Certificate is for students who are interested in learning about the Construction and the Built Environment sector alongside other fields of study, with a view to progressing to a wide range of higher education courses, not necessarily in Construction and the Built Environment-related subjects.

The qualification has been developed in consultation with universities and professional bodies to ensure students have the knowledge, understanding and skills they need to progress to and thrive in higher education in construction or architecture.

Students will develop the following knowledge and skills from the units covered:
• Knowledge and understanding of construction materials, construction technology and design of new buildings, and sustainability practices in construction
• Use of mathematical techniques to solve problems in construction contexts
• Technical design and communication skills including sketching, the use of software and visualisations to present information
• Problem solving
• Knowledge and understanding of cost control, contracting and procurement; retrofit processes and solutions; BIM concepts and processes
• Skills in compiling cost estimates and proposing retrofit solutions
• Critical thinking: The ability to apply mathematical techniques to solve problems and demonstrate technical design and communication skills in construction contexts are key attributes needed for construction degrees. Knowledge about sustainability practices in construction complemented by transferable skills such as problem solving and critical thinking are crucial for the future of the construction industry as well as in STEM education

## How is my work assessed?

There are five units, two externally assessed and three internally assessed, which cover the following aspects of construction:

Unit 1: Construction Principles 1 hour 45 minutes -An external examination set and marked by Pearson -90 marks

Unit 2: Construction Technology 1 hour 45 minutes - An external examination set and marked by Pearson - 70 marks

Coursework units:
• Unit 3 - Construction design - Pearson sets the assignment for the assessment of this unit. The assignment will take 15 hours to complete. The PSAB will be marked by centers and verified by Pearson.

• Unit 5 - retrofit in construction - Pearson sets the assignment for the assessment of this unit. The assignment will take 9.5 hours to complete. The PSAB will be marked by centers and verified by Pearson.

• Unit 6 - modelling in construction - Pearson sets the assignment for the assessment of this unit. The assignment will take 12 hours to complete. The PSAB will be marked by centers and verified by Pearson.

## What should I consider before starting this subject?

- An interest in buildings, architecture, engineering and how the construction industry operates.
- Enjoyment of problem-solving, designing and understanding how buildings and structures are constructed.
- A willingness to develop technical knowledge of construction materials, building methods and sustainable construction.
- Confidence in applying mathematical and scientific principles to solve construction-related problems.
- An interest in developing technical drawing, design and digital modelling skills.
- Good organisation and time management skills, as the course combines written examinations (50%) with internally assessed assignments (50%).
- Writing skills and mathematical skills as you will be required to use formulae and write assignments.
- Need drawing on computers and by hand and have an interest in being hands on, trying new skills and techniques.

## Why is this course useful and what might it lead to?

- Develops valuable transferable skills, including problem-solving, critical thinking, technical communication and project management.
- Provides an understanding of construction materials, building technologies, architectural design and sustainability.
- Builds knowledge of modern construction practices and digital technologies used within the industry.
- Prepares students for university courses and degree apprenticeships in Construction Management, Civil Engineering, Architecture, Building Surveying and Quantity Surveying.
- Supports careers in Architecture, Structural Engineering, Site Management, Building Surveying, Quantity Surveying and Construction Project Management.
- Provides a qualification equivalent in size to one A-Level, carrying UCAS points to support progression into higher education.

## Entry requirements

- Grade 4 or above in English and Maths.
- GCSE Construction, Design & Technology, Engineering or a related subject is desirable but not essential.
- Good mathematical skills and an interest in applying scientific and technical knowledge.

## Where can I find more information?

- Course specification
- Course website
- Speak to our school's D&T department or sixth-form subject teachers.
- Visit university websites or UCAS to explore related degree courses and career pathways.
- Explore apprenticeship websites to discover future pathways in construction, architecture and engineering.