

Pearson BTEC Level 4 HNC in Construction and the Built Environment (Civil Engineering) (QCF) 土木工程高級證書 (Reg. No.: 252336)

1. Design Principles & Application for Construction & the Built Environment

This module enables learners to develop their ability to evaluate the planning and design phases and consider the environmental impact of construction projects. Learners will explore the roles and legal responsibilities of all parties involved in construction projects.

2. Science & Materials for Construction & the Built Environment

This module introduces scientific principles relevant to the study of construction and the built environment and provides learners with a fundamental understanding of the properties and use of construction materials.

3. Applied Mathematics for Construction & the Built Environment

This module provides learner with an understanding of analytical techniques and the mathematical skills needed to solve construction and engineering problems. This module has been designed to enable learners to use mathematical processes to solve construction, civil engineering and building services engineering problems.

4. Group Project in the Construction Industry

This module will develop learner's skills in terms of the evaluation and resolution of realistic practical problems and the ability to work as part of a team. This module also enables the application of knowledge, understanding and skills developed in other units, and where possible experiences from work, to a major piece of work.

5. Site Surveying Procedures for Construction & the Built Environment

This module is designed to develop learners' skills in using modern surveying equipment to carry out a range of typical site surveying procedures in the construction and built environment sector. This module develops the understanding and skills required to perform surveying calculations.

6. Engineering Geology & Soil Mechanics

This module provides learners with skills to classify soil types and establish primary design parameters for soils. Learners will discuss the significance of the

ground investigation element of site investigation. Learners will also gain a working understanding of the tests needed to classify soils and establish their design parameters.

7. Civil Engineering Technology

This module introduces learners to the methods and techniques used to create civil engineering structures. This module has a strong theoretical underpinning and learners will develop an understanding of the technical requirements for substructures and superstructures.

8. Structural Analysis & Design

This module focuses on the skills required to analyse construction designs and appraise statically determine structures. Learners will design common structural elements to the appropriate British Standard, code of practice or European Code of Practice.