University of the Built Environment
EST. 1919

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Construction Technology 1

Module Descriptor

Module Code:	CON4TE1
Version:	V9.00
Status:	Final
Date:	11/08/2025

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Summary Module Details

Module details

Module Title: Construction Technology 1

Module Leader: Rob Otter

Module Mode: Supported online learning

Semester: Spring (UK)

Level: 4

Credits: 20

Learning Hours: 200

Contact & Study Hours

Directed Study Time: 90 hrs (45%)

Self-directed Study Time: 50 hrs (25%)

Assessment Study Time: 60 hrs (30%)

Assessment Type

Coursework: 70%

Computer Marked Assessment: 30%

Module Summary

This module provides an introduction to building, environment and technology based on simple construction, establishing a foundation of knowledge and understanding to be developed in later modules. It develops students' communication skills, enabling them to describe simple construction in a professional manner.

Simple building examples are included, such as traditional masonry construction and roof construction typical in buildings of up to three storeys. Perspectives such as sustainability are considered.

Taken on which Programmes

BSc (Hons) Building Control (C)

BSc (Hons) Building Surveying (C)

BSc (Hons) Construction Management (C)

BSc (Hons) Quantity Surveying (C)

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BSc (Hons) Real Estate Management (C)

BSc (Hons) Architectural Design Technology (C)

Certificate of Higher Education (CertHE) Built Environment Studies (C)

Certificate of Higher Education (CertHE) Construction and Built Environment (C)

(C) or Elective (E)

Module Aims

This module aims to:

- Provide an introduction to simple construction, covering building, technology and environment theory, principles, materials, components, performance, standards, sustainability, communication and techniques.
- Encourage competence in the interpretation of drawing information.
- Establish a foundation of building, technology and environment knowledge and understanding to be developed in other modules.

Module Learning Outcomes

LO1. Identify the concepts and principles associated with the building, environment and technology of simple construction and be able to evaluate and interpret them using sketches, drawings or in written form.

LO2. Describe building elements and components in specific situations; how, when and where they would be favoured; and the construction sequence for simple buildings.

LO3. Evaluate the appropriateness of different approaches, materials and construction in simple construction in accordance with building, environment and technology theories and sustainability.

LO4. Communicate accurately and reliably on building, environment and technology issues for simple construction, using structured coherent arguments and theory.

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Indicative Module Content

Module topics

- **The nature and relevance of the module together with communication methods/ drawing/ measurement**

Introduces the content of the module and describes how communication is carried out on building projects in the written form and through the use of drawings and sketches.

- **Site works and foundations**

Explains the importance of understanding the implications of basic soil conditions on the design of simple foundations for houses, how these soil conditions are investigated and describes how simple foundations are constructed.

- **The different methods of construction**

Looks at the traditional method of building houses in the UK and compares and contrasts this with a variety of different methods of construction, which are often referred to as MMC (Modern Methods of Construction).

- **Details of the above ground structure**

Explores typical details of construction for the floors, walls, roof, windows and doors of a simple building and describes the principles and logic that affect the sequence of building a house.

- **Environment and the performance of buildings**

Explains the effects of different external environments, based on the location of the building, on building design and how designs are adapted to meet the performance requirements of the occupants. Looks at the needs of the end user in terms of the basic functions of simple buildings in order to accommodate an inclusive environment (all age and abilities).

- **Materials**

Looks at the properties of common building materials, such as concrete, brick and timber and how these materials are used in buildings. Also explores the properties of a wider range of materials, which can be used in simple buildings.

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- **The science of buildings**

Explains in simple terms the principles of how to design the external shell of a simple building in order to avoid excessive heat loss and the creation of condensation and mould growth on, or in, parts of the building.

- **Sustainability of simple buildings**

Describes how the energy implications, in terms of operating energy and the embodied energy of the building, can be minimised, and connects this to the provision of more economic buildings which are better places to live.

- **Building services and finishes**

Explains how internal and external building services, such as water, gas, electricity and drainage are built into the fabric of the building and how the finishes to a building are chosen and fitted.

This content will be reviewed and updated regularly to reflect the legal, moral and financial changes in professional standards and practice.

Overview of Summative Assessment

Module learning outcomes	**Assessment**	**Word count or equivalent**	**Weighting**
LO1, LO2, LO3	**Assessment 1** Computer Marked Assessment (CMA)	450 word equivalent	15%
LO1, LO2, LO3	**Assessment 2** Computer Marked Assessment (CMA)	450 word equivalent	15%
LO1, LO2, LO3, LO4	**Assessment 3** Coursework	2,100 word equivalency	70%

Module Pass Mark (as a weighted average of all assessments): 40%

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Key Module Learning Resources

Core Sources and Texts

The core reading resources within each module will be provided via the specific Virtual Learning Environment (VLE) module pages and within the e-Library. Additional reference material and supplementary resources to support your studies are available through the University e-Library.

Module tools

Students will have access to study materials, dedicated academic support, student forums, and learning activities via an online learning platform (VLE).

The module page on the VLE is broken down into structured study weeks to help students plan their time, with each week containing a mixture of reading, case studies, videos/recordings and interactive activities to go through. Online webinars/seminars led by the Module Leader can be attended in real time and provide opportunities to consolidate knowledge, ask questions, discuss topics and work through learning activities together. These sessions are recorded to support students who cannot attend and to enable students to recap the session and work through it at their own pace. Module forums on the VLE provide further opportunities to discuss topics with other students, complete collaborative work and get extra help from the module team.

Professional online resources

The e-Library provides access to trusted, quality online resources, selected by subject specialists, to support students' study. This includes journals, industry publications, magazines, academic books and a dissertation/work-based library. For a list of the key industry specific and education resources available please visit the VLE e-Library.

Other relevant resources

Access is also provided to further information sources that include the British Library and Open University UK catalogues, as well as providing a monthly current awareness service entitled, ***Knowledge Foundations*** - a compendium of news, research and resources relating to the educational sector and the Built Environment.

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The module resource list is available on the module VLE page and is updated regularly to ensure materials are relevant and current.

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