

**BTEC**

# **HIGHER NATIONALS**

**Construction**



**Higher National  
Certificate Lvl 4**

# Unit 4: Construction Practice & Management

<b>Unit code</b>	<b>R/615/1390</b>
<b>Unit type</b>	<b>Core</b>
<b>Unit level</b>	<b>4</b>
<b>Credit value</b>	<b>15</b>

## Introduction

The aim of this unit is to develop and provide students with a holistic understanding of construction practice and management processes. Students will investigate and research the modern construction industry, both from the practical skills embedded within the industry through to its linkage with development on-site and the connection with construction management; including roles within the industry.

The unit compares and investigates small, medium and large construction companies within the market place and how construction processes, for development, have evolved.

Students will also explore how Health & Safety has evolved within the industry, including how the major stakeholders, from companies to site operatives, have embedded Health & Safety into their preferred areas of development and careers. In addition, students will explore Building Information Modelling and how it fits into construction processes/sequences ranging from domestic to large-scale and design and build projects.

The knowledge from this unit will provide students with an understanding of modern construction and management; the skills, management of people and projects, and how Health & Safety have changed the perception of the construction industry.

## Learning Outcomes

By the end of this unit, a student will be able to:

- 1 Describe the construction industry with reference to company structures and other activities
- 2 Explain different types of construction companies in the market and their relationships within the tendering process
- 3 Discuss the key stages in a construction project, and how Building Information Modelling informs the different stages
- 4 Analyse how the construction industry has developed suitable collaboration strategies in support of greater recognition of Health & Safety.

## Essential Content

### LO1 **Describe the construction industry with reference to company structures and other activities**

*Understanding of the construction industry:*

Historical development of the construction industry

Professional and other institutes, including societies

Links between professional, technical and skills professionals

Contractor and head office structure

Site structure and organisation

Types of contractual work tendered by companies.

### LO2 **Explain different types of construction companies in the market and their relationships within the tendering process**

*Company types:*

Professional relationships between companies

Contract tendering

Tender process.

### LO3 **Discuss the key stages in a construction project, and how Building Information Modelling informs the different stages**

*Master programmes and contract planning techniques*

*The role of Building Information Modelling (BIM) on the construction*

*Modern procurement methods within construction*

*Sustainability*

**LO4 Analyse how the construction industry has developed suitable collaboration strategies in support of greater recognition of Health & Safety**

*Key stakeholders in the construction process*

*BIM and collaboration*

*Health & safety within the construction industry:*

Pre-construction regulations and legislation

Site safety.

## Learning Outcomes and Assessment Criteria

Pass	Merit	Distinction
<b>LO1</b> Describe the construction industry with reference to company structures and other activities		<b>D1</b> Critically evaluate how construction companies have developed their structure and business ethos
<b>P1</b> Explain how the construction industry has developed and encompassed professionalism within its structures  <b>P2</b> Demonstrate the scope and linkage between all parties within a construction organisation  <b>P3</b> Identify the type of contractual work tendered by contractors	<b>M1</b> Analyse how the construction industry has developed overall in terms of company structures, it's employees and contracted work	
<b>LO2</b> Explain different types of construction companies within the market and their relationships within the tendering process		
<b>P4</b> Identify the different types of construction companies in the market  <b>P5</b> Explain the relationship between different construction organisations	<b>M2</b> Analyse the relationships between construction companies through contracts and tendering.	<b>D2</b> Compare the factors that influence contract relationships between different organisations involved in tendering.

Pass	Merit	Distinction
<p><b>LO3</b> Discuss the key stages in a construction project, and how Building Information Modelling informs the different stages</p>		<p><b>D3</b> Provide a detailed analysis of how the construction industry has evolved in terms of innovative construction methods and contracts</p>
<p><b>P6</b> Identify, with examples, modern construction processes and sequences used within today's industry, highlighting the way they respond to sustainability needs</p> <p><b>P7</b> Explain contract planning techniques used within micro and macro projects</p> <p><b>P8</b> Identify where BIM impacts upon operations and construction companies</p>	<p><b>M3</b> Analyse how construction has developed in terms of innovation, designs, and within contracts for micro and macro projects, and the interrelationship with BIM</p>	
<p><b>LO4</b> Analyse how the construction industry has developed suitable collaboration strategies in support of greater recognition of Health &amp; Safety.</p>		<p><b>D4</b> Evaluate the impact of Health &amp; Safety legislation, how it has evolved the drivers for it, and its advantages or weaknesses within construction</p>
<p><b>P9</b> Explain how Health &amp; Safety has now become an integrated part of the construction process</p> <p><b>P10</b> Describe the government legislation which has benchmarked Health &amp; Safety within construction</p> <p><b>P11</b> Discuss the role of collaboration and communication in ensuring safe working practices</p>	<p><b>M4</b> Demonstrate how the construction industry has benefited through changes in Health &amp; Safety legislation</p>	

## Recommended Resources

### Textbooks

GRIFFITH, A. and WATSON, P. (2003) *Construction Management: Principles and Practice*. Hampshire: Palgrave Macmillan.

HARRIS, F. and MCCAFFER, R. (2013) *Modern Construction Management*. Chichester: Wiley-Blackwell.

KYMMELL, W. (2007) *Building Information Modelling: Planning and Managing Construction Projects*. New York: McGraw Hill Professional.

OTTOSSON, H. (2012) *Practical Project Management for Building and Construction*. Boca Raton: CRC Press.

### Websites

[www.ciob.org.uk](http://www.ciob.org.uk)

Chartered Institute of Building  
(General Reference)

[www.rics.org](http://www.rics.org)

Royal Institute of Chartered Surveyors  
(General Reference)

### Links

This unit links to the following related units:

*Unit 12: Financial Management & Business Practices in Construction*

*Unit 13: Tender & Procurement*

*Unit 23: Contracts & Management*

*Unit 24: Project Management*

*Unit 25: Management for Complex Building Projects*

*Unit 38: Personal Professional Development*

*Unit 45: Maintenance & Operations*

*Unit 47: Construction Data Management*