

**BTEC**

# **HIGHER NATIONALS**

**Construction**



**Higher National  
Certificate Lvl 4**

# Unit 1: Individual Project (Pearson-set)

<b>Unit code</b>	<b>R/615/1387</b>
<b>Unit type</b>	<b>Core</b>
<b>Unit level</b>	<b>4</b>
<b>Credit value</b>	<b>15</b>

## Introduction

The ability to define, plan and undertake a project is a critical set of skills needed in various roles within the construction industry. Identifying appropriate information and analysing this, to formulate clear results or recommendations, is required to underpin many of the processes that inform construction projects.

The aim of this unit is to support students in using and applying the knowledge and skills they have developed through other areas of their studies to complete and present an individual project. In addition, this unit will provide students with key study skills that will support them in further study.

Students will be able to identify, define, plan, develop and execute a successful project by working through a clear process. They will develop a project brief; outlining a problem that requires a solution, as well as a project specification, the specific requirements of which the final outcome must meet. They will research the problem, undertaking a feasibility study, and consider a range of potential solutions using critical analysis and evaluation techniques to test, select and contextualise their preferred solution. Students will provide a work and time management plan, keeping a diary of all activities, reflecting on their process and their learning throughout the project.

**\*Please refer to the accompanying Pearson-set Assignment Guide and the Theme Release document for further support and guidance on the delivery of the Pearson-set unit.**

## **Learning Outcomes**

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

- 1 Formulate a project that will provide a solution to an identified problem
- 2 Manage a project within agreed timescales and specification; documenting the process throughout
- 3 Evaluate potential project management solutions
- 4 Produce a project report and deliver a presentation of the final project outcomes.

## Essential Content

### LO1 **Formulate a project that will provide a solution to an identified problem**

*Project identification*

*Research methods*

*Feasibility studies*

*Brief and specification*

### LO2 **Manage a project within agreed timescales and specification, documenting the process throughout**

*Resources and resource planning*

*Costs and cost planning*

*Work plan:*

Gantt charts

Project Evaluation and Review Technique (PERT) charts

Critical Path Method (CPM).

*Project tracking:*

Progress tracking

Milestones.

### LO3 **Evaluate potential project management solutions**

*PERT analysis*

*CPM analysis*

### LO4 **Produce a project report and deliver a presentation of the final project outcomes**

*Report formats*

*Presentation techniques.*

## Learning Outcomes and Assessment Criteria

Pass	Merit	Distinction
<b>LO1</b> Formulate a project that will provide a solution to an identified problem		<b>LO1 and LO2</b>  <b>D1</b> Evaluate the relationship between project identification, feasibility and project planning, with consideration of the impact of project scope on time and resources
<b>P1</b> Select an appropriate construction-based project, giving reasons for your choice  <b>P2</b> Identify the main components of a project specification	<b>M1</b> Explain why the project specification is of fundamental importance to a successful project outcome	
<b>LO2</b> Manage a project within agreed timescales and specification, documenting the process throughout		
<b>P3</b> Identify potential resources, costs and timescales  <b>P4</b> Describe a range of appropriate techniques for generating realistic potential solutions	<b>M2</b> Prepare and update a project management plan, using standard systems of time and resource tracking	

Pass	Merit	Distinction
<b>LO3</b> Evaluate potential project management solutions		<b>LO3 and LO4</b> <b>D2</b> Appraise your own performance in managing the project; draw conclusions and make recommendations that would further improve your performance in the future
<b>P5</b> Explore project management strategies to determine suitability for a given project  <b>P6</b> Justify the selection of your preferred solution, making reference to your initial project specification	<b>M3</b> Compare the outcomes of your initial planned resources, timescales and costs against actual outcomes	
<b>LO4</b> Produce a project report and deliver a presentation of the final project outcomes		
<b>P7</b> Produce a written report identifying each stage of the project  <b>P8</b> Utilise appropriate forms of referencing and citation in the preparation of a written report  <b>P9</b> Prepare a presentation of your final project outcomes, utilising industry standard software	<b>M4</b> Present your final project outcomes and recommendations to a selected audience	

## Recommended Resources

### Textbooks

BALDWIN, A. (2014) *Handbook for Construction Planning and Scheduling*. London: Wiley-Blackwell.

BUSSEY, P. (2015) *CDM 2015: A Practical Guide for Architects and Designers*. London: RIBA.

CIOB (2010) *Guide to Good Practice in the Management of Time in Complex Projects*. London: Chartered Institute of Building.

GOETSCH, D.L. (2011) *Construction Safety & Health*. London: Pearson.

KELLY, J. and MALE, S. (1992) *Value Management in Design and Construction: The Economic Management of Project*. London: Taylor & Francis.

LAWSON, B. (2005) *How Designers Think: The Design Process Demystified*. London: Routledge.

POTTS, K. and ANKRAH, N. (2014) *Construction Cost Management: Learning from Case Studies*. London: Routledge.

WYATT, D. (2007) *Construction Specifications: Principles and Applications*. New York: Delmar.

### Links

This unit links to the following related units:

*Unit 5: Legal & Statutory Responsibilities in Construction*

*Unit 6: Construction Information (Drawing, Detailing, Specification)*