

Unit 7: Project Management in Construction and the Built Environment

Unit code: T/600/0235

QCF Level: 3

Credit value: 10

Guided learning hours: 60

Unit aim

This unit will enable learners to develop project management skills and to understand and apply project planning techniques to plan, organise and control resources effectively and efficiently in construction and the built environment.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

Learning outcomes	Assessment criteria
1 Know the roles and responsibilities of, and interaction between, the parties involved at each stage of a construction process	1.1 Identify the various stages of the construction process for a low-rise domestic or commercial building
	1.2 Describe the roles and interrelationships of the members of the building team involved in resource management, planning and production
2 Understand the resources required to complete a construction project	2.1 Discuss the resources required to complete a construction project
	2.2 Explain the techniques used to plan, organise and control a construction project
3 Understand the functions of management in the production stage of a construction project	3.1 Explain the management procedures used to monitor and control resources when organising construction projects

4 Be able to develop documentation for construction teams	4.1	Discuss examples of resource planning and management documentation
	4.2	Create planning documentation, including bar charts, networks and schedules, for typical low-rise domestic or commercial projects.

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THIS IS AN ACCREDITED SPECIFICATION AND CAN BE USED FOR TEACHING AND ASSESSMENT

Unit content

1 Know the roles and responsibilities of, and interaction between, the parties involved at each stage of a construction process

Stages of a construction process: design; construction; maintenance; repair; alteration; refurbishment; demolition; recycling; feasibility studies; procurement; pre-contract; post-contract; elements of a typical low-rise domestic or commercial building

Members of the building team: management at director or site level; technical and professional roles eg planner, buyer, estimator, quantity surveyor; supervisory roles, eg contract supervisor, general foreperson; general operative roles, eg labourer, drain layer, steel fixer; craft roles, eg joiner, bricklayer, plasterer

Interrelationships: head office and site organisational charts; communication (methods, instruction, cooperation, coordination, control); levels of responsibility and accountability

2 Understand the resources required to complete a construction project

Resources: human (direct and sub-contract labour, management and supervision); plant and machinery; materials; domestic and nominated sub-contractors

Techniques: production of long- and short-term programmes; scheduling of material requirements; requisitioning; ordering; receiving and checking; site handling; storage and security issues; labour management techniques (work and method study; control and organisation of labour); plant management (hire, lease or purchase; utilisation and control); relevant documentation; software for producing a construction programme; software for monitoring a construction programme

Aspects of construction projects: planning; context

Factors affecting the planning process: labour factors eg availability and cost, skill levels, motivation, productivity; plant factors eg output rates, efficiency; material factors eg availability, delivery periods, lead times; design approval; site handling; waste; sustainability issues; community/stakeholder issues

Context: finance; contractual including contract period and liquidated and ascertained damages; site layout and organisation; temporary facilities and works; health, safety and welfare issues

3 Understand the functions of management in the production stage of a construction project

Management procedures: forecasting; planning; organising; monitoring; controlling; coordinating; reviewing

Organising construction projects: site layout plan; traffic routes; labour movement; materials and plant location; access and egress; site accommodation; storage; security; health, safety and welfare; method statements; progress monitoring; site meetings; sub-contractor liaison; site resources documentation control; programmes of work; bar

charts; schedules eg line of balance; network diagrams eg arrow diagrams and critical path analysis; variables to be taken into account eg weather, availability of skilled labour, labour disputes, confined access, late design changes, late construction information, material shortages

4 Be able to develop documentation for construction teams

Documentation: head office and site documentation (schedules; requisitions; method statements; budgets; cost plans); bar charts; schedules eg line of balance; network diagrams eg arrow diagrams, critical path analysis

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