Unit 30: Project Management

Level: **5**

Credits: **15**

Ofqual Code: **R/618/8133**

Introduction

Management is a key feature of a project from conception, through design and construction stages, into end-user and end-of-life cycles. Throughout this process, a project manager is called upon to manage stakeholders, facilitate communication and information sharing, and support different groups to ensure they are working to schedule, budget and contract.

Project managers will need to have sound knowledge, skills and competencies to manage all aspects of a complex construction project. This role may be fulfilled by a client representative or an external appointment.

The aim of this unit is to explore theories and practices relating to project management, the project manager role and managing stakeholders throughout the project process.

Topics covered in this unit include: project management as a discipline and suitability for a range of construction industry activities; project stakeholder types and their management; project manager roles and responsibilities; project management plans.

On completion of this unit, students will be able to apply the theories and practices of project management to real-world scenarios. In doing so, they will develop transferable skills as well as equipping themselves with industry-standard tools to work as effective members of a project management team.

Learning Outcomes

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

LO1 Discuss the theory and practice of project management and the context of the profession

LO2 Explain the roles, relationships and management of stakeholders in a construction project

LO3 Describe the activities of a project manager through the different phases of a construction project

LO4 Present a project management strategy for a given construction project.

Essential Content

LO1 **Discuss the theory and practice of project management and the context of the profession**

Project management

Definition of a project

The purpose of project management

The role of the Project Manager (e.g., responsibilities, attributes, competencies)

Project management vs construction management

Key concepts

Project goal

Resources (e.g., human, physical, data, scarcity, sustainability)

Timeline

Dependency

Milestones

Risks

Success

Professional recognition

Association for Project Management (APM)

Project Management Institute (PMI)

International Project Management Association (IPMA)

Green Project Management (GPM)

Others

Standards

PMI – Project Management Body of Knowledge (PMBOK Guide)

APM – Body of Knowledge

IPMA – Project Excellence Baseline (PEB)

GPM – Projects Integrating Sustainable Methods (PRISM)

ISO Standards (e.g., ISO 9000, ISO 10006:2003)

Others

Project management methodologies

Gantt charts

Critical Path Method (CPM)

Program Evaluation and Review Technique (PERT)

PRINCE2 (Projects in Controlled Environments)

Other (e.g., Agile, Lean, Scrum)

LO2 **Explain the roles, relationships and management of stakeholders in a construction project**

Definition of 'stakeholder'

'individuals and organizations who are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or successful project completion.' (Project Management Institute, 2001)

Internal stakeholders

Investors (e.g., banks, shareholders)

Client

Consultants (e.g., architects, designers, engineers, cost consultants)

Contractors (e.g., main contractor, sub-contractors, suppliers)

Management (e.g., facilities managers, operators)

External stakeholders

Users (e.g., residents, occupiers)

Others (e.g., local government, general public, statutory agencies)

Stakeholder relationships

Contractual relationships

Financial relationships

Statutory relationships (e.g., statutory bodies, government bodies)

Moral/ethical relationships (e.g., professional bodies, equality and diversity, codes of conduct)

Stakeholder management

Stakeholders' power and interests

Monitoring stakeholder views

Communicating project information (e.g., keeping stakeholders informed)

Managing conflicts

LO3 **Describe the activities of a project manager through the different phases of a construction project**

Construction project process models

RIBA Plan of Work

OGC Gateway

Designing Building Wiki Project Plans

Other

Project initiation

Working with/appointment of consultants (e.g., architects, engineers, cost consultants)

Feasibility

Project planning

Scope statement and documentation

Project goals (e.g., SMART goals, CLEAR goals)

Work breakdown (e.g., milestones, dependencies)

Communication plan (e.g., information sharing, data sharing)

Risk management plan

Project execution

Assigning resources

Setting up tracking

Updating plans

Modifying plans

BIM in project management

Project monitoring

Concurrent with project execution

Measuring progress (e.g., time, potential delays, costs)

Project reporting (e.g., progress, cost, quality, material use, sustainability)

Health and safety (e.g., monitoring, notifying)

Project closure

Project completion

Snagging lists/punch lists

Final project evaluation

LO4 **Present a project management strategy for a given construction project**

Project type (e.g., residential, commercial, industrial, cultural)

Project stakeholders

Project management strategy

Scope

Goals

Timeline (e.g., Gantt chart, dependencies, milestones)

Resources (e.g., physical, materials, human)

Communications (e.g., information requirements, BIM data)

Presentation

Format (e.g., report, audio-visual)

Material (e.g., graphical, written, data)

Learning Outcomes and Assessment Criteria

Pass	Merit	Distinction
LO1 Discuss the theory and practice of project management and the context of the profession		
P1 Explain the function and benefits of project management for construction projects. **P2** Describe the role of professional bodies and standards in project management.	**M1** Compare different project management concepts and standards, and their potential to support sustainability.	**D1** Analyse the way that different project management methodologies may address stakeholder interests in a construction project.
LO2 Explain the roles, relationships and management of stakeholders in a construction project		
P3 Discuss the different parties that may be considered internal and external stakeholders in a construction project. **P4** Assess the different types of stakeholder relationships in a construction project.	**M2** Assess the power and interests of different stakeholders in a construction project and their influence on the management of the project.	

Pass	Merit	Distinction
LO3 Describe the activities of a project manager through the different phases of a construction project		
P5 Explain the role of a project manager through the different phases of a construction project. **P6** Discuss the role of the project manager during the construction phase, including health and safety requirements.	**M3** Illustrate how project management activities may map to an overall model of a construction project process.	**D2** Justify an approach to project management for a given construction project in supporting achievement of project goals.
LO4 Present a project management strategy for a given construction project		
P7 Define the project scope and goals for given construction project. **P8** Present a project management strategy that integrates project milestones, dependencies, resources and communication requirements.	**M4** Analyse the relationship between project goals, timeline and resources for a given construction project.	

Recommended Resources

Print resources

AXELOS (2018), *Directing Successful Projects with PRINCE2®*, Tso, the Stationery Office

CIOB (THE CHARTERED INSTITUTE OF BUILDING) (2008), *Code of Practice for Project Management for Construction and Development*, John Wiley & Sons

FEWINGS, P. (2013), *Construction Project Management*, Routledge

PROJECT MANAGEMENT INSTITUTE (2017), *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)–Sixth Edition*, Project Management Institute

SEARS, S., SEARS, G., CLOUGH, R., ROUNDS, J., SEGNER, R. (2015), *Construction Project Management*, John Wiley & Sons

Web resources

https://www.apm.org.uk	**Association for Project Management (APM)** (Professional Body)
https://www.prince2.com	**Prince2** (General Reference)
https://www.pmi.org	**Project Management Institute** (Professional Body)

Links

This unit links to the following related units:

- Unit 4: The Construction Environment
- Unit 5: Legal and Statutory Requirements in Construction
- Unit 11: Financial Management & Business Practices in Construction
- Unit 13: Building Information Modelling
- Unit 20: Site Supervision & Operations
- Unit 23: Construction Economics & Sustainability
- Unit 25: Quantity Surveying Practice
- Unit 26: Digital Applications for Building Information Modelling
- Unit 27: Law & Legal Frameworks in Quantity Surveying
- Unit 28: Group Project (Pearson-set)
- Unit 29: Contracts & Management
- Unit 38: Advanced Quantities for Complex Building Projects
- Unit 43: Advanced Surveying & Measurement
- Unit 44: Maintenance & Operations
- Unit 54: Advanced Quantity Surveying Practice.