UNIVERSITY COLLEGE
OF ESTATE MANAGEMENT

Construction Project Management

Module Descriptor

Module Code: PMA6CPM

Version: 7.00

Status: Final

Date: 25/04/2023

Summary Module Details

Module details

Module Title: Construction Project Management

Module Leader: Martyn Quarterman

Module Mode: Supported online learning

Semester: Autumn (UK) & Spring (UK)

Level: 6

Credits: 20

Learning Hours: 200

Contact & Study Hours:

Directed Study Time: 90hrs (45%)

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

Assessment Study Time: 60hrs (30%)

Assessment Type:

Coursework: 100%

Computer Marked Assessment: 0%

Self-directed Research Project: 0%

Portfolio: 0%

Module Summary

This module explores a range of strategic and operational issues in construction project management. The construction project manager (CPM) plays a key role at all stages of the construction process for diverse client organisations that operate in a dynamic environment. The fundamental need for clients to enhance value in their construction projects and, increasingly, to also engage stakeholders, means that the CPM has a critical contribution to make. This module therefore provides an opportunity to develop the knowledge, understanding and skills required to operate as a CPM in the context of the property and construction industries.

Taken on which Programmes

BSc (Hons) Construction Management (C)

BSc (Hons) Building Surveying (C)

BSc (Hons) Quantity Surveying (E)

Core (C) or Elective (E)

Module Aims

This module aims to:

- Provide knowledge, understanding and skills to solve a variety of problems in the area of construction project management;
- Develop awareness of the nature and characteristics of project management generally and more specifically in the construction industry;
- Develop understanding and the ability to critically evaluate the underlying concepts and theoretical principles in project management and its application in construction in a rigorous and robust manner;
- Cultivate intellectual curiosity and to be philosophically reflective in the subject matter consistent with this level of study.

Module Learning Outcomes

LO1. Demonstrate a systematic understanding of the function of project management in property, construction and the project lifecycle; and of the concepts, theories, principles and techniques associated with construction project management at strategic and operational level.

LO2. Critically apply established techniques of analysis and enquiry to construction project management and use judgement to evaluate a range of solutions.

LO3. Provide appropriate construction management advice to organisations in order to meet objectives while meeting required standards of ethics and governance.

LO4. Demonstrate the skills to manage procedures and processes during the construction project lifecycle.

Indicative Module Content

Module topics

- **Introduction to project management and its strategic functions**

  This topic introduces the concept of the strategic functions of project management and how and why we have strategy, what it is and how it is implemented into a project. We will review the role of the project manager and what role they take in turning the strategic aims of a company into operational outcomes.

- **Briefing for project managers including the importance of sustainability awareness**

  Brownfield construction sites often require decontamination before they can be ready for development. In the UK, as in much of the world, governments require reuse rather than greenfield sites to be developed. Before any of this can happen, the project manager must develop a project brief to determine the outcomes for the project and how sustainability will be incorporated.

Construction Project Management

- **Project strategy and principles of strategic procurement**

  This topic reviews project strategy and the principles of strategic procurement and how the project strategy can be supported and enhanced by the selection of the correct procurement system. Project strategy and procurement are two separate concepts. Project strategy on its own guides the project manager as to what are the client's aims and objectives in terms of Time, Cost, and Quality.

- **Structuring frameworks and methodologies for the management of projects**

  Framework Agreements operate to provide a structure in which the parties can enter into multiple contractual arrangements over a period of time and we look at how they are used. Construction projects are temporary and unique and contain five key elements; Initiating, Planning, Executing, Monitoring and Controlling and Closing, although are often more complicated than that. How do you manage complex projects in a real-world situation which constantly changes or moves forward?

- **A project manager's guide to development strategy and the property development process including environmental sustainability considerations**

  Institutions involved in urban development tend to see the development process as an industrial process, that is to say, as a functional process in which the market meets the demands of the consumers by producing for a variety of purposes. Project managers are at the centre of this, taking the client objectives and turning them into a functional building.

- **Construction legislation**

  Management of construction legislations and other statutory consents is key to the start of the project start up process. A great deal of work in obtaining statutory consents, such as planning permissions and building regulations approval is carried out by the design team and other consultants. The project manager has a vital facilitating role to play in what are critical project activities.

- **Pre-contract stages**

  Management of pre-contract stages is a very important part of the project process and can affect overall success. The pre-contract stages are primarily focused on setting up of the project 'team' based on the client objectives. In this instance the team is determined by the selection for individuals, the criteria used, the type of procurement method or process to be used i.e. 2 stage tendering, partnering etc.

- **Post-contract management**

  Post-contract work revolves around the construction project manager's role in construction and handing over the building to the client or end user. The post-contract phase includes construction; handing over the completed facility to the client; and the project's subsequent evaluation.

- **Management of change, innovation and creativity in construction including the importance of environmentally sustainable solutions**

  The construction industry is fragmented with hundreds of thousands of companies competing against one another. They all adopt different ways of absorbing and managing change, being innovative or creative. However, this is done on a piecemeal basis and only effective in part. Keys issues need to be addressed such as:

    - Why we need change, how it is planned and executed.

- The types of change management and how we can drive innovation and creativity in this process.
- How to be creative at solving issues in construction.
- Awareness of environmental and sustainability consideration in projects.

- **Liability of the project manager and client care**

  The construction project manager has an ongoing and long-term liability in terms of project closure, handover, review and commissioning of the building. As many of the consultants and construction teams and sub-contractors leave the project the project manager has an ongoing obligation.

- **Project management under some selected forms of contract**

  Often project managers do not fully understand the need for a contract before starting a project because they expect the project to succeed and in most cases the project is completed without reference to the contract. However, when things go wrong the contract is vital in defining the responsibilities and liabilities of the parties. This topic defines the role of the CPM and their responsibilities in the contractual process.

- **Partnering and supply chain management**

  Partnering is a way of structuring business relationships, which has profound implications for both contracts and the ways people work together. Working positively and in a collaborative way with companies that you ‘supply to’ and ‘buy from’ is good for business. Construction companies that work in this way are seeing the benefits both for themselves and their clients. Supply chain management is the formalised process that gives structure to these arrangements.

- **Principles of integrated risk and value management including sustainability considerations**

  Sustainability issues are at the heart of this module and so students are required to consider how sustainability is/can be incorporated as part of the risk and value management processes and how the construction project manager will administer this.

- **Benchmarking**

  This topic introduces the mechanism for measuring a contractor’s performance in delivering construction projects. In order to do this, there needs to be something to measure or compare it against as a benchmark. This can be done internally by comparing different projects or looking at competitors and comparing their performance against your company.

- **Culture, ethics and international construction**

  The topic provides an essential understanding of the context of culture and ethics as well as their implications on international construction, questioning some of the issues a construction project manager or construction company will face is they choose to work abroad.

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** Coursework	2,000	40%
LO1, LO2, LO3, LO4	**Assessment 2** Coursework	3,000	60%

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

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 UCEM 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.

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