

Building Economics

Module Descriptor

Module Code: QSP7BEC

Version: 12.00

Status: Final

Date: 27/02/2025

Summary Module Details

Module details

Module Title: Building Economics

Module Leader: Lesley Callander

Module Mode: Supported online learning

Semester: Spring (UK)

Level: 7

Credits: 20

Learning Hours: 200

Contact & Study Hours

Directed Study Time: 60hrs (30%)

Self-directed Study Time: 70hrs (35%)

Assessment Study Time: 70hrs (35%)

Assessment Type

Coursework: 100%

Computer Marked Assessment: 0%

Self-directed Research Project: 0%

Portfolio: 0%

Module summary

This module provides students with a comprehensive understanding of commercial aspects of a construction project including an appreciation of what affects the costs of a building, and the methods used to manage and control costs at the pre-contract stage of the project. The importance of lifecycle costs and the maintenance management of a building are also considered.

Taken on which Programmes

MSc Quantity Surveying (C)

Core (C) or Elective (E)

Module Aims

This module aims to:

- Provide an understanding of factors that can affect the cost of a building.
- Examine the provision of cost advice provided during the pre-contract phase of a construction project.
- Evaluate the role of value engineering and life cycle cost exercises.
- Examine the role of information management systems and digital technologies in delivering value to client projects;

Module Learning Outcomes

- LO1. Critically evaluate techniques used in the provision of cost advice during the pre-contract phase of a construction project.
- LO2. Critically analyse alternative construction design solutions and their impact on initial and lifecycle costs.
- LO3. Demonstrate knowledge and understanding of the processes and methods involved in preparing pre-contract advice associated with the construction and lifecycle of construction projects.
- LO4. Demonstrate knowledge and understanding of the processes involved in the pre-contract stage of a project in delivering long term value to the client.

Indicative Module Content

Module topics

- **Project Inception**

Pre-contract roles of the project team, briefing process, the role of building information management (BIM), value for money and the need for value management.

- **Factors that Affect the Cost of Construction**

The factors that affect the cost of construction, and identifying factors which affect the cost of buildings by considering the following three main areas:

- Design factors such as shape of building, circulation space, height etc.
- Site factors such as location, topography etc.
- Economic factors such as amount of construction work available, availability of resources etc.

The impact of sustainability factors is considered within each of the above, as applicable.

Building Economics

- **Pre-Contract Cost Control: Preparing pre-contract cost advice, practical application, and Analysis**

Provides an insight into the need for pre-contract cost control and an overview of the methods used at the various stages of the design process. Practical application of the various techniques used during pre-contract cost control.

Identifies various sources of cost information, explains suitability for individual building projects and methods of adjustments and updating that will be required to ensure appropriateness for use.

Critical analysis of the pre-contract cost control methods, exploring the benefits and limitations in their use.

- **Life Cycle Costing, building maintenance management**

Introduces the importance of considering not only initial costs of construction but also the future costs associated with owning and running a property after construction, identifying issues relating to sustainability, as appropriate. Explains the calculation used to compare life cycle costs of alternative design options, allowing recommendations to be made to a client.

Explains the importance and implications of maintenance management. Considers the relationship between building maintenance management, life cycle costing (LCC), value management and value engineering (VM/VE), and BIM.

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	Assessment 1 Coursework	2,000	40%
LO3, LO4	Assessment 2 Coursework	3,000	60%

Module Pass Mark (as a weighted average of all assessments): 50%

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.