

Building Economics

Module Descriptor

Module Code: QSP7BEC

Version: 10.00

Status: Final

Date: 22/07/2020

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 during the pre-contract phase including costs, financing, value management and cost control and where applicable the profitability of development opportunities.

Taken on which Programmes

MSc Quantity Surveying (C)

Core (C) or Elective (E)

Module Aims

This module aims to:

- Comprehensively 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.
- Evaluate the role of development appraisals and their relevance to project viability.

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. Critically evaluate the impact the use of value engineering and life cycle cost exercises on construction projects.
- LO4. Demonstrate knowledge and understanding of development appraisals and their role in the construction project cost advice process.

Indicative Module Content

Module topics

- **Project Inception**

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

- **Factors that Affect the Cost of Construction and Pre-Contract Cost Control**

The factors that affect the cost of construction, pre-contract cost control, 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. Provides an insight into the need for pre-contract cost control and an overview of the techniques used at the various stages of the design process.

- **Indices and Preparing Pre-Contract Cost Advice**

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

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- **Pre-Contract Cost Control: Application and Analysis**

Practical application of the various techniques uses during pre-contract cost control, including comparative cost planning.

- **Life Cycle Costing**

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.

- **Building Maintenance Management, LCC, VM/VE and BIM**

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.

- **Valuation and the Real Estate Development Process**

Explains the processes involved in the property development process, the roles of the various parties involved in the development and the procedural aspects, which have an impact on development.

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%
LO1, LO2, 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.

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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.