

Design Economics

Module Code ACBA66001

Level 6

Credits 20

JACS CODE – K240

House Rules



Introduction

- Ceri Jones BSc (Hons) MRICS
- Chartered Quantity Surveyor, working in Faithful+Gould
- Over 20 years experience
- Experienced in Education, Residential, Restoration

Aim

To develop the ability to understand the process and techniques for cost modelling in accordance with professional codes of practice and the RICS core competencies.

Learning Outcomes

Assess the applicability of sources of cost data. Consider the design and its cost implications at cost planning stage.

Critically evaluate processes to develop cost plans or cost models

Apply value-engineering techniques at cost planning stage

Content

Assess the applicability of sources of cost data

The use of investment theory and its use in preparing the feasibility study

The construction of a cost model for use in Industry

The application of cost data from BCIS and its use in cost modelling

Life cycle costing

Circular economy

Value engineering

Cost Estimating

Estimating is the assessment of the likely cost of construction works, based on a given set of criteria.

It might take the form of a **functional unit cost**, an **elemental analysis**, or a **priced detailed measure**.

It might assess the overall cost of a project, look at an element of the structure, or focus on a particular construction detail. In addition to **labour, plant and material costs** it will consider **preliminaries, overheads, profit, risk and any other factors that might affect cost**.

There are two fundamental components of an estimate:

1. Cost
2. Specification

Cost on its own is meaningless until it has a specification associated with it. The specification must give a clear definition of what the cost represents in terms of what it covers and what it excludes.

Cost Estimating

Cost Estimating at different stages of a project can be use to establish the following;

Initially helps the client set its budget

Monitors that the design is developing in line with the budget or cost plan

Predicts the likely level of tender returns (pre-tender estimate, PTE)

Predicts or establish the cost of change / variations

A client has approach us in order for us to prepare an initial cost estimate;

What information do we need?



In order to prepare an **initial cost estimate** we need the following information;

- Location of the site
- Indicative programme and the date he intends to carry out the works
- Procurement method and strategy
- If there are any appointed designers
- Initial project brief and intended use
- Floor area or number of functional units
- Site conditions
- Any Restrictions (such as planning etc)
- Budget or cashflow limitations
- Design fees and development costs
- Mechanical & Electrical requirements

Reading List

Cost Planning of Building; *Ferry and Brandons*

Building Cost Planning for the Design Team; *Smith. J*

Cost Planning of Construction Projects; *John Wiley and Sons*

Design Economics for the Built Environment Impact of Sustainability on Project Evaluation; *John Wiley & Sons.*

RICS New Rules of Measurement 1

Potential Source of Cost Data.

SPON's Architect and Builder Price Book

Wessex Price Book

RICS – Building Cost Information Services

Building Magazine – Cost Modelling

