JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

5D BIM Quantity Take-off and Cost Estimation Training Course

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

5D BIM Quantity Take-off and Cost Estimation Training Course

5D BIM Quantity Take-off and Cost Estimation is a 1-week training course for quantity surveyors, cost estimators, cost managers and BIM coordinators, and it ends with a model-based cost estimate built from a federated model. Clients now expect cost advice that keeps pace with design changes rather than trailing them by weeks. Jupiter Prime Training treats 5D BIM Quantity Take-off and Cost Estimation as the discipline that links model elements to measured, priced and traceable quantities.

Why 5D BIM Quantity Take-off and Cost Estimation Matters Now

Three forces shape model-based cost work today. Design teams issue federated models more often than drawings, so quantities must refresh with each exchange; clients and funders expect cost plans to explain every movement between stages; and models delivered under ISO 19650 information requirements already carry the classification and property data estimators need. A cost team that measures from the model can price options in days, explain variances element by element and catch missing scope early. One that re-measures from drawings each time falls behind the design, misses changes and argues later about what was included.

Who Gains Most from 5D BIM Quantity Take-off and Cost Estimation

- Surveyors who measure quantities and prepare bills or schedules of rates
- Estimators who price elements, assemblies and design options at each stage
- Cost managers who maintain cost plans and report movements to clients
- BIM coordinators who prepare model properties and classification for measurement
- Commercial leads who assess variations and change orders during construction

A consultancy or contractor gains most when its quantity surveyor, estimator and BIM coordinator attend together and agree one set of measurement rules for the model.

5D BIM Quantity Take-off and Cost Estimation Capabilities

Participants learn to move from manual measurement to model-linked quantities that refresh, reconcile and explain themselves.

- Specify model properties and classification needed for measurement — design teams and BIM coordinators
- Build quantity take-off rules for walls, slabs, openings and services — surveyors and estimators
- Apply measurement conventions and deductions consistently to model data — cost managers
- Calculate elemental cost plans linked to model elements and rates — clients and funders
- Test quantity changes between model versions and report variances — commercial leads

- Communicate cost movements with model views and variance tables — project boards

Key 5D BIM Quantity Take-off and Cost Estimation Terms

- 5D BIM — the linking of model elements to quantities, rates and costs so the estimate updates with the design.
- Quantity Take-off — extracting measured quantities such as areas, volumes, lengths and counts from model elements.
- Measurement Rules — agreed conventions defining how each element is measured, including units, deductions and inclusions.
- Classification Mapping — linking model categories to a cost classification so quantities fall into the right cost elements.
- Elemental Cost Plan — a budget broken into building elements, each with quantities, rates and allowances.
- Model Version Comparison — checking two model issues to find added, removed or changed elements and their cost effect.

5D BIM Quantity Take-off and Cost Estimation Day by Day

Day 1: Cost Information in the Model

- 5D Use Cases — Choosing Where Model Quantities Replace Manual Measurement
- Model Property Review — Checking Materials, Types and Dimensions
- Classification Mapping — Linking Model Categories to Cost Elements
- Level of Information for Costing — Matching Model Detail to Estimate Stage
- Federated Model Preparation — Combining Disciplines for Measurement

Day 2: Quantity Take-off Methods

- Take-off Rules for Structure — Measuring Concrete, Reinforcement and Steel
- Take-off Rules for Envelope — Measuring Walls, Glazing and Roofing
- Take-off Rules for Services — Counting Equipment and Measuring Runs
- Openings and Deductions — Applying Measurement Conventions Consistently
- Unmeasured Items Register — Recording Scope the Model Cannot Show

Day 3: Pricing and Cost Plans

- Rate Libraries — Linking Unit Rates to Classified Quantities
- Assemblies and Composite Rates — Pricing Build-ups From Components
- Elemental Cost Plan Structure — Organising Budgets by Element
- Preliminaries and Allowances — Adding Costs Outside the Model
- Design Option Pricing — Comparing Alternatives for Value Decisions

Day 4: Change Tracking and Reporting

- Model Version Comparison — Detecting Added, Removed and Changed Elements
- Cost Variance Reports — Explaining Movements Between Stages
- Variation Assessment — Pricing Change Orders From Model Updates
- Cost Dashboards — Showing Budget Status to Project Boards
- Audit Trails for Quantities — Proving Where Each Number Came From

Day 5: Practising the Model-Based Cost Estimate

- Federated Model Set-Up — Applying Classification Mapping to a Sample Project
- Quantity Extraction Run — Applying Take-off Rules Across Disciplines
- Pricing Pass — Applying Rate Libraries and Allowances
- Variance Check — Applying Version Comparison to a Revised Model
- Model-Based Cost Estimate — Completing the Work Product

Applying 5D BIM Quantity Take-off and Cost Estimation After the Course

- Agree classification mapping and measurement rules with the design team for one live project and test them on the next model issue
- Run a model version comparison between two design issues and present the resulting cost variance report to the client

5D BIM Quantity Take-off and Cost Estimation Questions FAQ

What is 5D BIM Quantity Take-off and Cost Estimation and why does it matter now?

5D BIM Quantity Take-off and Cost Estimation links model elements to measured quantities, rates and cost plans. It matters now because designs change quickly and clients expect cost advice that updates and explains each movement.

Which roles gain most from 5D BIM Quantity Take-off and Cost Estimation?

Quantity surveyors, cost estimators, cost managers and BIM coordinators gain most. They measure, price and report costs, and prepare the model data that makes those quantities reliable.

How does 5D BIM Quantity Take-off and Cost Estimation differ from a 4D BIM scheduling course?

It links the model to quantities and costs rather than to programme activities. A 4D course simulates sequence and time; this course measures, prices and tracks cost changes from model data.

What do you bring back from 5D BIM Quantity Take-off and Cost Estimation?

You bring back a model-based cost estimate from a federated model, with classification mapping, take-off rules, an elemental cost plan and a variance check between model versions.

5D BIM Quantity Take-off and Cost Estimation: The Way Forward

The model-based cost estimate first informs which design option fits the budget at the current stage. Cost managers, estimators and clients use it to agree scope before the next issue. After the first design revision, revisit the measurement rules and unmeasured items register, since real model changes show where data gaps still need manual measurement.