



Cost Accounting: Job, Process and Standard Costing with Variance Analysis



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Introduction:

Cost accounting problems in factories and service operations usually start in the cost ledger: overheads spread on the wrong base, process losses buried in unit costs, standards nobody has revised and variances reported without explanation. Product prices, margins and stock values then rest on unreliable numbers. This Core Concept course trains cost and finance staff to run job, batch, contract, process and standard costing systems, calculate and investigate variances and apply activity-based costing. Participants finish by building a Costing System Design and Variance Report for a case plant.

Course Objectives:

- Classify costs by element, behaviour and cost object and set up cost centres, cost units and cost ledger accounts
- Calculate material, labour and overhead costs, including apportionment, absorption rates and under- or over-absorbed overhead
- Prepare job, batch, contract, service and process cost statements, including equivalent units, process losses and joint product apportionment
- Set standard costs and flexed budgets, then calculate and investigate material, labour, overhead and sales variances
- Reconcile marginal and absorption costing profits and apply activity-based costing to product and customer profitability
- Build a Costing System Design and Variance Report for a manufacturing plant

Target Audience:

- Staff who maintain cost ledgers, cost centre codes and product cost sheets
 - Accountants who calculate overhead absorption rates and post under- or over-absorption at period end
 - Analysts who prepare monthly variance reports and plant cost statements
 - Finance staff in process industries who value production streams, losses and joint products
 - Finance staff in service operations who cost jobs, contracts, service units and customers
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Course Outline:

Day 1: Cost Concepts, Cost Classification and the Cost Ledger

- Cost Objects, Cost Units and Cost Centres in a Cost Accounting Manual
- Element Classification: Direct Material, Direct Labour, Direct Expenses and Production Overhead
- Cost Behaviour Separation with the High-Low Method and Scatter Graph
- Prime Cost, Factory Cost and Total Cost Sheet Layout
- Integrated Versus Interlocking Cost Ledger Accounts and Control Account Reconciliation

Day 2: Material and Labour Costing

- Stores Requisition, Bin Card and Material Issue Pricing on the Stores Ledger
- Economic Order Quantity, Reorder Level and Buffer Stock Calculations
- Material Wastage, Scrap and Spoilage Recording
- Labour Time Booking, Idle Time and Overtime Premium Treatment
- Labour Turnover Cost, Piecework and Halsey and Rowan Bonus Schemes

Day 3: Overhead Collection, Apportionment and Absorption

- Overhead Analysis Sheet: Collection and Allocation to Production and Service Cost Centres
- Primary Apportionment Bases: Floor Area, Machine Value and Headcount
- Service Department Reapportionment: Direct, Step-Down and Reciprocal Methods
- Predetermined Absorption Rates: Machine-Hour, Direct Labour-Hour and Percentage of Prime Cost
- Under- and Over-Absorbed Overhead Calculation and Period-End Journal

Day 4: Job, Batch, Contract and Service Costing

- Job Cost Sheet Build from Material Requisitions, Time Sheets and Applied Overhead
- Work-in-Progress Control Account and Transfer to Finished Goods
- Batch Costing and Economic Batch Quantity
- Contract Cost Account: Plant on Site, Subcontract Charges and Cost to Complete
- Service Costing with Composite Cost Units for Transport, Hospital and Utility Operations

Day 5: Process Costing, Process Losses and Joint Products: Guided Case

- Equivalent Units Statement Under Weighted Average and FIFO Process Methods
 - Normal Loss, Abnormal Loss and Abnormal Gain Accounts with Scrap Value
 - Joint Cost Apportionment by Physical Units, Sales Value at Split-Off and Net Realisable Value
 - By-Product Treatment: Revenue Deduction Versus Other Income
 - Guided Case: Three-Process Food Plant Cost Statement and Process Accounts
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Day 6: Standard Costing and Flexed Budgets

- Ideal, Attainable and Current Standards for Material Usage and Labour Hours
- Standard Cost Card Build for a Multi-Component Product
- Flexed Budget and Operating Statement Structure
- Standard Hours Produced with Efficiency, Activity and Capacity Ratios
- Learning Curve Effects on Labour Standards

Day 7: Variance Calculation and Variance Investigation

- Material Price and Usage Variances with Mix and Yield Split
- Labour Rate, Idle Time and Efficiency Variances
- Variable and Fixed Overhead Expenditure, Efficiency, Capacity and Volume Variances
- Sales Price, Sales Volume, Sales Mix and Quantity Variances
- Planning Versus Operational Variances and Control Chart Investigation Thresholds

Day 8: Marginal Versus Absorption Costing and Cost Reporting

- Marginal Costing Income Statement and Contribution per Unit
- Absorption Costing Income Statement with Fixed Overhead Carried in Stock
- Profit Reconciliation Statement Between Marginal and Absorption Results
- Standard Costing Operating Statement from Budgeted to Actual Profit
- Responsibility Centre Cost Report Pack with Variance Commentary for Plant Managers

Day 9: Activity-Based Costing, Profitability and a Petrochemical Case

- ABC Cost Pools and Cost Drivers for Manufacturing Support Activities
- Activity Hierarchy: Unit, Batch, Product-Sustaining and Facility-Level Costs
- Customer Profitability Analysis with Order Handling, Delivery and After-Sales Activity Costs
- Cost Control Measures: Cost per Tonne, Process Yield and Overhead Recovery Rate
- Petrochemical Case: Cracker Unit Joint Product Costing and Stream Variances

Day 10: Capstone: Costing System Design and Variance Report for a Case Plant

- Case Plant Brief: Process Flow, Cost Centres and Production Data
 - Costing System Choice: Job, Process or Hybrid with an ABC Overlay
 - Standard Cost Cards and Overhead Absorption Rates for the Case Plant
 - Monthly Variance Report and Profit Reconciliation Build
 - Costing System Design and Variance Report Presentation and Peer Challenge
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Skills You Will Gain:

- Cost Ledger Maintenance
- Overhead Apportionment and Absorption
- Job and Contract Costing
- Process Costing and Loss Accounting
- Joint and By-Product Costing
- Standard Cost Setting
- Variance Calculation and Investigation
- Activity-Based Costing

Why Attend This Course:

- Leave with a Costing System Design and Variance Report for a case plant, built from process flow to monthly variance report
- Explain to plant managers why actual cost differs from standard, variance by variance, with evidence for which ones to investigate
- Replace a single blanket overhead rate with cost centre and activity rates that match how the plant consumes resources
- Work through costing problems from food processing, petrochemicals, engineering, transport and hospital services alongside peers from other sectors

Conclusion:

Reliable product and service costs depend on a costing system that matches how work actually flows through the operation. Week one builds the costing methods: classification, material and labour costing, overhead absorption, job, batch, contract and process costing with losses and joint products. Week two adds standards, flexed budgets, full variance analysis and investigation, marginal and absorption reconciliation, activity-based costing and a petrochemical case. The final day produces a Costing System Design and Variance Report for a case plant.
