

## Module 10

### 6.10.1 Cost Accounting

<b>Module title</b>		Cost Accounting								
<b>Module NFQ level (only if an NFQ level can be demonstrated)</b>		7								
<b>Module number/reference</b>		AT10								
<b>Parent programme(s)</b>		Bachelor of Arts (Honours) in Accounting and Finance								
<b>Stage of parent programme</b>		Stage 2								
<b>Semester (semester1/semester2 if applicable)</b>		Semester 2								
<b>Module credit units (FET/HET/ECTS)</b>		ECTS								
<b>Module credit number of units</b>		10								
<b>Duration of the module</b>		One Academic Semester, 12 Weeks Teaching.								
<b>Average (over the duration of the module) of the contact hours per week</b>		6								
<b>Analysis of required learning effort</b>										
<b>Effort while in contact with staff</b>										
Classroom and demon-strations		Mentoring and small-group tutoring		Other (specify)		Directed e-learning (hours)	Independent learning (hours)	Other hours (specify)	Work-based learning hours of learning effort	Total effort (hours)
Hours	Minimum ratio teacher/learner	Hours	Minimum ratio teacher/learner	Hours	Minimum ratio teacher/learner					
48	1:40	24	1:20				178			250
<b>Allocation of marks (within the module)</b>										
		Continuous assessment		Supervised project		Proctored practical examination		Proctored written examination		<b>Total</b>
<b>Percentage contribution</b>		30%						70%		<b>100%</b>

## Minimum intended module learning outcomes

On the successful completion of this module, students should be able to:

- MIMLO 10.1** Describe and discuss the basic principles and practices cost accounting and what differentiates it from financial accounting.
- MIMLO 10.2** Apply the principles of standard costing and use appropriate quantitative methods for analysing costs and cost behaviour patterns.
- MIMLO 10.3** Outline the role of cost accounting in relation to performance measurement.
- MIMLO 10.4** Interpret and critically evaluate a basic budget, operating plan and financial plan.

## Module content, organisation and structure

### Indicative Syllabus

The nature and purpose of management accounting

- Explain and describe the role of management accounting in a modern organisation as a key source of financial information for planning, control and decision making
- Explain the key differences between financial accounting and management accounting
- Explain the differences between strategic, tactical and operational planning and the role of management accounting at each level
- Identify and explain the internal sources and external sources of management information at each planning
- Explain the significance of the external environment (political/regulatory, social/cultural, economic/financial, technological and competitive) on management accounting information for planning, control and decision making
- Explain the importance of sampling (e.g. market research, production sampling) and explain and apply the different sampling methods such as random, systematic, judgemental, sequential and stratified sampling
- Explain the meaning and the differences between a cost centre, a revenue centre, a profit centre and an investment centre

Cost analysis and behavioural patterns

- Explain, illustrate and apply cost classification distinguishing between production (materials, labour and production related overheads and non-production (administration, distribution, sales & marketing, research & development and finance)

- Explain, apply and calculate the prime cost of a product or service (direct materials, direct labour and direct expenses)
- Explain the meaning of direct materials and describe the process of ordering, storing, controlling and issuing material to production
- Understand the importance of counting and valuing and recording inventory as a key part of a management accounting control system
- Explain the meaning of direct labour and the process of accounting for it in a management accounting context
- Explain and discuss the differences between production related overheads (maintenance costs, raw material warehouse costs, quality assurance costs, production supervisory staff costs etc) and non-production related overheads (distribution, administration, finance, sales & marketing, research & development etc.)
- Explain the significance of the distinction between production and non-production overheads in inventory valuation under absorption and marginal costing
- Explain and graphically illustrate various cost behaviour patterns and understand the algebra involved in formulation of a straight line
- Explain, calculate and interpret basic break-even analysis in the context of a single product type, including break-even point and margin of safety
- Explain and apply the concepts of a 'cost object' a 'cost unit', a 'batch cost' and a 'cost centre' in the management accounting context
- Explain and discuss the role of computer spreadsheets, information processing and sampling programmes in assisting the management accounting function
- Present information in a report format in addition to preparation and interpretation of a table, a graph, a bar chart, a line chart and a pie chart

Describe and apply basic cost/management accounting concepts:

- Explain, discuss and apply fundamental management accounting techniques to the treatment of raw materials:
  - Explain what is meant by direct materials and indirect materials
  - Explain and apply the concept of the bill of materials in the compilation of standard cost incorporating wastage allowances and inflation
  - Understand and apply the process of ordering, issues to production and returns from production using either LIFO, FIFO or Weighted average values
  - Explain and discuss the importance of a physical inventory count and valuation reconciliations to the accounting records
  - Explain, calculate and interpret the accounting entries to reflect the use of material in production
  - Calculate Economic Order Quantity (EOQ), holding costs, ordering costs and re-order levels to minimise the total inventory cost, including situations involving quantity purchases discounts
- Explain, discuss and apply fundamental management accounting techniques to the treatment of labour:
  - Explain what is meant by a bill of labour and distinguish between direct labour and indirect labour
  - Explain and apply the concept of the bill of labour in the compilation of standard cost incorporating budgeted idle time and inflation
  - Understand and apply the process of recording direct labour cost and the accounting treatment of payments

- Explain and discuss the relative merits of various remuneration and incentive systems for direct labour (time based, output based or a combination) including bonus systems
  - Explain, calculate and interpret the accounting entries to reflect the use of direct labour in production
- Explain, discuss and apply fundamental management accounting techniques to the treatment of expenses and overheads
  - Explain what is meant by direct and indirect expenses (overheads)
  - Explain and distinguish between production overheads and non-production overheads and the differences in treatment in management accounting
  - Explain, discuss and analyse overheads to distinguish variable and fixed overheads (production and non-production overheads)
  - Allocate, apportion, reapportion service centre costs and absorb production related overheads into the standard product costs (variable and fixed production related overheads)
  - Explain, discuss and calculate standard product cost using a variety of absorption bases (Direct labour hour, machine hour, % of direct material cost, % of direct labour cost, % of prime cost, per unit)
  - Calculate under/over absorption and explain the reasons why it might occur and how it is accounted
- Explain and calculate standard contribution and standard profit
- Explain, assess and discuss marginal costing and absorption costing and the impact these have on reported profit and inventory values
- Apply and calculate profit or loss under marginal costing and absorption costing and show calculations to explain/reconcile the difference
- Identify and discuss the relative merits of marginal and absorption costing systems
- Explain, apply and calculate job costs and identify the circumstances where it would be useful to apply job costing from information provided
- Explain, apply and calculate batch costs and identify the circumstances where it would be useful to apply batch costing from information provided
- Explain, discuss and apply the concept of process costing in a management accounting context:
  - Explain process costing and where it can be used
  - Explain and calculate normal loss, abnormal loss and abnormal gain
  - Explain and calculate equivalent units, where there are partly completed units at the beginning and/or the end of the process
  - Calculate and present process accounts, including circumstances where there are partly completed units, normal losses, abnormal losses or gains
  - Show the value of output to subsequent processes or finished goods using the FIFO or Weighted average methods
  - Identify and explain joint products and by-products and how they can be accounted for in management accounts
- Understand and briefly explain modern management accounting techniques such as Just-in-Time (JIT), Total Quality Management (TQM), Activity Based Costing (ABC) and Target Costing
- Explain, apply and prepare calculations to assist the decision making process:
  - Explain the concept of relevant costs and apply it to information provided
  - Explain limiting factors and prepare calculations to demonstrate the profit maximising allocation of scarce resource
  - Explain the breakeven concept (cost/volume/profit) and calculate breakeven in a single product type scenario

- Use the high-low method to calculate total fixed cost and variable cost per unit including adjusting for inflation
- Explain and distinguish between regression and correlation and use regression analysis to calculate total fixed cost and variable cost per unit and interpret the results
- Explain the meaning of the correlation coefficient and the coefficient of determination and interpret the calculations
- Prepare forecast fixed and variable costs for future periods or volume changes using the linear regression equation
- Explain and apply time series analysis to forecast costs in future period having taken account of trend, seasonal and cyclical variation and discuss the benefits and limitations of time series analysis

#### Basic budgeting:

- Explain and discuss the key objectives of planning and budgeting and its importance in management accounting and control systems
- Identify and explain the main stages in the process of preparing a budget including an explanation of the principal budgetary factor (usually forecast sales volume/mix)
- Explain and discuss the behavioural aspects of budgeting and the desire to achieve goal congruence via participation and performance related incentives
- Explain and discuss the motivational impact of responsibility accounting, participation in budgeting, the establishment of targets using either top down or bottom up budgetary processes
- Prepare budgets for sales revenue (volume, mix and price), production and finished goods (volume, mix and cost), raw material (purchased and used), labour and overheads (production and non-production)
- Prepare an income statement and a statement of financial position (master budgets) based on the functional budgets
- Calculate basic variances between the budget and actual performance:
  - Sales volume and price
  - Materials usage and price
  - Labour rate and efficiency
  - Fixed overhead
- Explain the meaning of and the possible causes of variances and recommend corrective action to improve performance and eliminates the variance
- Explain the concept of flexible budgets and prepare flexed budgets to allow for activity/volume changes and discuss the merits and limitations of flexed budgets
- Explain the nature and scope of capital budgeting and apply/calculate the benefit of capital investment taking time value of money into consideration:
  - Identify and explain the main stages in a capital investment decision
  - Explain and apply the relevant costs (future cash flows) of an investment project and distinguish cash flows from profits
  - Explain and apply the time value of money concept (compounding and discounting) and the use of annuity tables
  - Calculate Net Present Value (NPV) of the capital investment project and interpret the findings
  - Calculate Internal Rate of Return (IRR) of the capital investment project and interpret the findings
  - Calculate payback (simple and discounted) and interpret the findings

### Basic standard costing:

- Explain the objectives of establishing the standard cost of a product or service
- Prepare and calculate the standard cost per unit from information provided
- Calculate, explain and interpret the following basic variances:
  - Sales (price and volume variance)
  - Materials (price and usage variances)
  - Labour (rate and efficiency variances)
  - Variable overhead (expenditure and efficiency)
  - Fixed overhead (expenditure and volume – subdivided into capacity and efficiency if appropriate)
- Identify and explain possible causes of the variances, the relationship between variances and discuss the factors which should be taken into account when considering investigation and recommend corrective actions to eliminate/significantly reduce the variance
- Prepare reconciliation statements to show the reconciliation of budgeted profit to actual profit under both marginal and absorption costing

### The basic concepts of performance measurement

- Explain the concept of accountability and the importance of monitoring performance at strategic, tactical and operational levels
- Explain and discuss the relative merits of using financial and non-financial performance measurement methodologies
- Calculate traditional basic ratios (profitability, liquidity and gearing) to assess financial performance and discuss the benefits and drawbacks of ratio analysis
- Explain and discuss the approach adopted by Kaplan and Norton's Balanced scorecard (financial, productivity/efficiency, innovation/growth and customer satisfaction) and apply it to a given scenario
- Identify and discuss the benefits and limitations of the Balanced Scorecard and the challenge of linking Key Performance Indicators (KPIs) to the Critical Success Factors (CSFs)
- Explain and discuss Fitzgerald and Moon's Building Blocks approach (Resource utilisation, Service quality, Flexibility and Innovation) to assessing performance mainly in the service industry, and apply it to a given scenario
- Identify the benefits and limitations of the Building Blocks methodology and the challenge of linking KPIs to CSFs
- Explain and discuss the Value for Money (VFM) methodology (Economy, efficiency and effectiveness) in performance measurement and apply it to a given scenario (including not-for-profit organisations)
- Identify the benefits and limitations of the VFM approach to performance measurement and the challenge of linking KPIs with CSFs
- Explain and discuss the concept of benchmarking in seeking to radically improve performance different forms of benchmarking (reverse engineering, process benchmarking etc.)
- Explain and distinguish between cost avoidance, cost reduction, cost control and value analysis

## Reading lists and other information resources

Title	Author	Publisher	Year
<b>Essential:</b>			
Management Accounting – ACCA F2 Textbook		BPP Learning Media	2018 annual update
Management Accounting A Practical Approach	Sheppard, G	Gill and Macmillan	2011
Management and Cost Accounting - 8 <sup>th</sup> Edition	Drury, C.	Thomson	2010
Costing - 6 <sup>th</sup> Edition	Lucey, T	Thomson	2002
<b>Recommended:</b>			
Cost Accounting: Principles and Practice	Dutta, M	Pearson Education	2004
Management and Cost Accounting -5 <sup>th</sup> Edition	Bhimani, A, Horngren, C, Datar, S & Rajan. M	Pearson Education	2011