



## Higher National Unit specification

### General information for centres

**Unit title:** Management Accounting for Decision Making

**Unit code:** F82J 35

**Unit purpose:** This Unit is designed to enable candidates to provide and evaluate management accounting information which will enhance the quality of decision making in the short to medium term within the organisation.

This Unit is primarily intended for candidates who wish to take up a career or further study in management accounting. It is also relevant to those with appropriate work experience and who wish to formalise their accounting skills.

On completion of the Unit the candidate should be able to:

- 1 Prepare a relevant cost and revenue statement to inform a specific management decision.
- 2 Apply marginal costing techniques to evaluate options.
- 3 Apply marginal costing techniques to provide information for short-run decisions.
- 4 Evaluate product mix decisions using limiting factor analysis.
- 5 Appraise capital investments.

**Credit points and level:** 2 HN Credits at SCQF level 8: (16 SCQF credit points at SCQF level 8\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

**Recommended prior knowledge and skills:** Access to this Unit is at the discretion of the centre. However, candidates would normally be expected to have some knowledge and skills in cost and management accounting. This could be demonstrated by achievement of the HN Units *F7JR 34: Cost Accounting* and *F7JS 34: Management Accounting Using Information Technology* or similar qualifications or experience.

**Core Skills:** Achievement of this Unit gives automatic certification of the following:

- ◆ Using Number at SCQF level 6
- ◆ Using Graphical Information at SCQF level 5
- ◆ Critical Thinking at SCQF level 6

## **General information for centres (cont)**

**Context for delivery:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

**Assessment:** This Unit could be assessed by five separate assessments.

An exemplar instrument of assessment and marking guidelines have been produced to indicate the national standard of achievement required at SCQF level 8.

Since the Core Skills components of Using Number and Critical Thinking at SCQF level 6, and Using Graphical Communication at SCQF level 5 are embedded in this Unit, it is strongly recommended that you follow the assessment guidelines given. If you wish to use a different assessment model, you should seek prior verification of the assessment instrument(s) you intend to use to ensure that the Core Skill is still covered.

## **Higher National Unit specification: statement of standards**

**Unit title:** Management Accounting for Decision Making

**Unit code:** F82J 35

The sections of the Unit stating the Outcomes, knowledge and/or skills, and evidence requirements are mandatory.

### **Outcome 1**

Prepare a relevant cost and revenue statement to inform a specific management decision.

#### **Knowledge and/or skills**

- ◆ Relevant cost and revenue concepts
- ◆ Cost and revenue statements
- ◆ Qualitative factors

#### **Evidence requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ Prepare a relevant cost and revenue statement to provide information for a specific management decision. The statement should include sunk costs, committed costs, incremental costs/income and opportunity costs.
- ◆ Justify the treatment of each cost.
- ◆ Evaluate the various options available to management taking into account qualitative as well as quantitative factors.

The evidence should be generated under closed book supervised conditions.

Figures must be accurate within a tolerance of two arithmetic or computational errors, with a maximum of two errors of principle.

#### **Assessment guidelines**

It is recommended that the assessment of this Outcome be completed within one hour.

The management decision could be based around the acceptance/rejection of a special order or continuation/abandonment of a project.

Qualitative factors to be taken into account could include: competition; possible labour/material shortages; possible industrial disputes.

The information for the decision could be presented as an initial full cost statement with additional information in the form of notes.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Management Accounting for Decision Making

### **Outcome 2**

Apply marginal costing techniques to evaluate options

#### **Knowledge and/or Skills**

- ◆ Marginal cost statements
- ◆ Contribution/sales ratio
- ◆ Limiting factor analysis
- ◆ Cost/pricing/volume decisions
- ◆ Make or buy
- ◆ Profit maximisation
- ◆ Qualitative factors

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ Produce marginal costing statements to inform product mix
- ◆ Determine the product mix which maximises profit, making reference to contribution/sales ratio and limiting factor analysis.
- ◆ Apply marginal costing techniques to evaluate various options of cost/price/volume taking into account qualitative as well as quantitative factors.
- ◆ Apply marginal costing techniques to evaluate options of make or buy taking into account qualitative as well as quantitative factors.

The evidence should be generated under closed book supervised conditions.

Figures must be accurate within a tolerance of two arithmetic or computational errors, with a maximum of three errors of principle.

#### **Assessment Guidelines**

It is recommended that the assessment of this Outcome be completed within one and a half hours.

The information for the marginal costing statement could be presented in the form of income and cost data in connection with products which are the subject of a management decision such as internal costs/pricing or make or buy based on a single limiting factor.

Qualitative factors to be taken into account could include: competition; market research or sufficient production capacity.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Management Accounting for Decision Making

### **Outcome 3**

Apply marginal costing techniques to provide information for short-run decisions.

#### **Knowledge and/or Skills**

- ◆ Cost behaviour
- ◆ Segregation of fixed and variable costs
- ◆ Contribution
- ◆ Break-even point; margin of safety; contribution/sales ratio
- ◆ Multi-product profit volume graph

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ Segregate costs into fixed and variable components using appropriate calculations.
- ◆ Calculate the contribution/sales ratio for a minimum of three products and in total.
- ◆ Produce a multi-product profit volume graph for the products which highlights break-even point and margin of safety.
- ◆ Prepare a report with recommendations based on a break-even analysis in a situation where there are changes to selling price, costs and volume. The report should outline the limitations of break-even analysis.

The evidence should be generated under closed book supervised conditions.

Figures must be accurate within a tolerance of two arithmetic or computational errors, with a maximum of two errors of principle.

#### **Assessment Guidelines**

It is recommended that the assessment of this Outcome be completed within one and a half hours.

The information for the multi-product profit volume graph could be presented in the form of income/cost data and production data in connection with a minimum of three products.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Management Accounting for Decision Making

### **Outcome 4**

Evaluate product mix decisions using limiting factor analysis

#### **Knowledge and/or Skills**

- ◆ Limiting factors
- ◆ Optimum product mix
- ◆ Linear programming model

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ Using a linear programming approach, prepare a clearly labelled graph to identify the optimum product mix where there is more than one limiting factor. The limiting factors should include a minimum of a labour hours constraint and a materials constraint.
- ◆ Prove the optimum mix by mathematical means.
- ◆ Produce a profit statement with accompanying evaluation to provide recommendations and justifications to management on the optimum product mix.

The evidence should be generated under closed book supervised conditions.

Figures must be accurate within a tolerance of two arithmetic or computational errors, with a maximum of two errors of principle.

#### **Assessment Guidelines**

It is recommended that the assessment of this Outcome be completed within one and a half hours.

The information for the cost statement could be presented in the form of income/cost data and production/sales demand data in connection with two products where more than one limiting factor exists.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Management Accounting for Decision Making

### Outcome 5

Appraise capital investments

#### Knowledge and/or Skills

- Accounting rate of return
- Payback
- Net present value
- Internal rate of return
- Effects of taxation and inflation

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ Appraise capital investment for two different projects using either accounting rate of return method or payback method.
- ◆ Recommend to management the best possible option available.
- ◆ Produce a cash flow statement relevant to a project using net present value technique. The statement should include all relevant data and take into account the effects of taxation and inflation.
- ◆ Calculate the internal rate of return for the project.
- ◆ Recommend to management the viability of the project.
- ◆ Explain the strengths and weaknesses of investment appraisal techniques.

The evidence should be generated under open book supervised conditions.

Figures must be accurate within a tolerance of two arithmetic or computational errors, with a maximum of two errors of principle.

#### Assessment Guidelines

It is recommended that the assessment of this Outcome be completed within one and a half hours.

The information for the capital investment appraisal techniques could be presented in the form of income/cost data, including information on taxation to enable tax calculations to be carried out, in respect of the various projects. Net present value information could be supplied.

## Administrative Information

<b>Unit code:</b>	F82J 35
<b>Unit title:</b>	Management Accounting for Decision Making
<b>Superclass category:</b>	AK
<b>Original date of publication:</b>	August 2010
<b>Version:</b>	02 (August 2013)

### History of changes:

Version	Description of change	Date
02	Error tolerances for Outcomes 1, 2, 3 and 4 revised. Assessment conditions for Outcome 4 changed from open book to closed book.	01/08/13

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## Higher National Unit specification: support notes

### Unit title: Management Accounting for Decision Making

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

### Guidance on the content and context for this Unit

This Unit is primarily intended for candidates who expect to take up a career or further study in management accounting. It is also relevant to those with appropriate work experience and who wish to formalise their management accounting skills.

For candidates who successfully achieve this Unit as part of the HND Accounting Group Award, there may be opportunities to gain exemptions from a number of professional accounting bodies. Centres should contact the relevant professional bodies to ascertain their current exemption policies.

It is designed to enable candidates to describe and apply management accounting techniques to support the management decision making process.

**Outcome 1** looks at the preparation of a relevant cost and revenue statement. Candidates could be presented with a statement prepared on a full-cost basis, and additional information allowing them to identify:

- ◆ Sunk costs
- ◆ Committed costs
- ◆ Incremental cash flows
- ◆ Opportunity costs

This information will be used to prepare a statement based on relevant costing. Candidates should justify the treatment of each cost/income.

**Outcome 2** covers marginal costing techniques:

- ◆ Identification of a limiting factor from more than one limited resource
- ◆ Recommendation of an optimum product mix based a single limiting factor
- ◆ Preparation of marginal cost statements to compare options resulting from changes to cost, price or volume
- ◆ Make or buy decisions

**Outcome 3** covers short-run decision-making:

- ◆ Cost behaviour
- ◆ Segregation of fixed and variable costs
- ◆ Contribution
- ◆ Break-even point; margin of safety; contribution/sales ratio
- ◆ Multi-product profit volume graph

## Higher National Unit specification: support notes (cont)

**Unit title:** Management Accounting for Decision Making

**Outcome 4** covers product mix decisions involving more than one limiting factor. Candidates could be provided with a scenario with two products, identifying more than one limiting factor.

- ◆ Identification of limiting factors expressed as constraint equations
- ◆ Identification of the objective function
- ◆ Identification of optimum product mix using a graphical linear programming model
- ◆ Confirmation of the optimum mix using simultaneous equations
- ◆ Preparation of profit statement for the product mix identified

**Outcome 5** covers the appraisal of capital investments using a number of techniques.

- ◆ Accounting rate of return
- ◆ Payback
- ◆ Net present value
- ◆ Internal rate of return
- ◆ Effects of taxation and inflation
- ◆ Justification of decisions
- ◆ Critical discussion of the techniques employed

The Unit covers the preparation of cost and revenue statements, application of marginal costing techniques to a variety of situations, evaluation of product mix decisions by the use of limiting factor analysis and application of investment appraisal techniques.

This Unit will enable candidates to provide management with information for decision making on such matters as make or buy, product profitability, break-even analysis, shutdown, dropping a product, one off contracts/orders, capital investment, profit maximisation and optimum production mix.

### Guidance on the delivery and assessment of this Unit

This Unit is likely to form part of a Group Award designed to provide candidates with knowledge and skills for further study or employment within an accounting environment.

Where this Unit is being delivered as part of the HND Accounting Group Award, it is recommended that the Unit be delivered in the second year of the award but certainly after the HN Units *F7JR 34: Cost Accounting* and *F7JS 34: Management Accounting Using Information Technology* as this Unit is a continuation in the study of management accounting.

While each Outcome is stand-alone, and could be taught discretely, it is recognised that there may be scope to integrate Outcomes 2 and 4. It is recommended that Outcome 3 be assessed separately as it introduces a more sophisticated type of break-even chart.

## **Higher National Unit specification: support notes (cont)**

**Unit title:** Management Accounting for Decision Making

### ***Opportunities for developing Core Skills***

The delivery and assessment of this Unit may contribute towards the Core Skill *Numeracy* at SCQF level 6. The achievement of this Unit gives automatic certification of Using Number at SCQF level 6 and Using Graphical Information at SCQF level 5. Throughout the Unit candidates apply a wide range of numerical and statistical skills to solve complex work related problems.

The achievement of this Unit gives automatic certification of the Critical Thinking component of the Core Skill *Problem Solving* at SCQF level 6. Within this Unit, candidates are required to investigate and analyse problems where there is a need to clarify relationships between contributing factors.

### **Open learning**

This Unit could be delivered by distance learning. However, it would require planning by the centre to ensure the authenticity of candidate evidence. Arrangements would have to be made to ensure that the evidence is generated under the assessment conditions specified for each Outcome.

Further advice can be found on SQA's website – [www.sqa.org.uk](http://www.sqa.org.uk).

### **Candidates with disabilities and/or additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* ([www.sqa.org.uk](http://www.sqa.org.uk)).

## General information for candidates

### Unit title: Management Accounting for Decision Making

This Unit is designed to enable you to develop your management accounting skills. It will enable you to prepare cost statements, apply marginal costing techniques, use limiting factor analysis and appraise capital investments.

In Outcome 1 you will identify costs and incomes relevant to a decision to inform management decision-making.

In Outcome 2 you will build on marginal costing and break-even techniques to evaluate various decisions facing an organisation including optimum use of limiting factors; make or buy decisions; and changes to prices, costs and volume.

In Outcome 3 you will build on your break-even knowledge to apply the technique to a multi-product situation.

In Outcome 4 you will adapt your approach to marginal costing to accommodate multiple limiting factors. This will be done by using a graphical linear programming model.

Outcome 5 introduces the concept of investment appraisal. You will learn about three approaches to investment appraisal — accounting rate of return, payback, and net present value — and the advantages and disadvantages of each.

Each Outcome may be assessed separately. The assessments will be carried out under supervised conditions.

There are opportunities to develop components of the Core Skills of *Numeracy* and *Problem Solving* in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Achievement of this Unit gives automatic certification of Using Number at SCQF level 6, Using Graphical Information at SCQF level 5 and Critical Thinking at SCQF level 6.