



National Unit Specification: general information

UNIT Information Technology for Management (Higher)

CODE DM3V 12

COURSE Administration (Higher)

SUMMARY

On completion of the Unit, candidates will understand the role of information in decision making and the impact of ICT on workflow, working practices and management and security of information. This Unit will enable candidates to extend their information and communications technology skills. It will allow candidates to adopt a holistic approach to solving business problems using various software applications and to present findings in a form acceptable to business. It is suitable for candidates who already possess skills in using ICT for problem solving.

OUTCOMES

1. Explain the role of information in decision making.
2. Describe the impact of ICT on workflow, working practices and management and security of information.
3. Use ICT to solve business problems, and communicate and present solutions.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ Standard Grade Administration at Credit level
- ◆ Intermediate 2 Administration or its Units

Administrative Information

Superclass: AY

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National Unit Specification: general information (cont)

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CREDIT VALUE

2 Credits at Higher (12 SCQF Credit points at SCQF level 6*).

*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.

CORE SKILLS

There is no automatic certification of Core Skills or Core Skills components in this Unit.

National Unit Specification: statement of standards

UNIT Information Technology for Management (Higher)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Explain the role of information in decision making.

Performance Criteria

- a) The nature of information is explained.
- b) Features of good information are described.
- c) Types of decisions are explained.

OUTCOME 2

Describe the impact of ICT on workflow, working practices and management and security of information.

Performance Criteria

- a) The impact of ICT on workflow and working practices is described.
- b) Advantages of data management systems to organisations are explained.
- c) Consequences of poor data management are described.
- d) Organisational procedures for security and confidentiality of information are described.
- e) The main features of legislation relating to the security and confidentiality of information are outlined.

Evidence Requirements

The assessment instrument for this Unit will comprise two parts. Part one will assess Outcomes 1 and 2 and part 2 will assess Outcome 3. Candidates must pass both parts of the assessment for *Information Technology for Management* to achieve this Unit.

Part one will assess both Outcomes 1 and 2 and will cover all Performance Criteria within each Outcome. Evidence required will comprise responses to a series of restricted response questions. The assessment must be undertaken under controlled, closed book conditions.

The maximum time allocation for this assessment is 30 minutes.

Where candidates fail to reach the agreed threshold score, re-assessment should follow using an alternative instrument of assessment.

The assessment instrument should sample the content and skills defined in Appendix 1. Each assessment instrument must cover all Outcomes and all Performance Criteria.

National Unit Specification: statement of standards (cont)

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OUTCOME 3

Use ICT to solve business problems, and communicate and present solutions.

Performance Criteria

- a) The internet is used to obtain information necessary to complete the given task.
- b) Relevant data is analysed and processed to solve a business problem using appropriate software applications.
- c) A solution to the problem is produced as a business document.
- d) Business documents are fit for purpose.
- e) The presentation is fit for purpose and a presentation software file is e-mailed to the teacher/lecturer.

Evidence Requirements

The assessment must be undertaken after completion of the Unit under controlled conditions with candidates having access to help menus within software applications and/or paper-based IT manuals.

The maximum time allocation for this assessment is 2 hours 30 minutes. This should be carried out over as few sessions as possible.

Where candidates fail to reach the agreed threshold score, re-assessment should follow using an alternative instrument of assessment.

Summary of Evidence Requirements for Outcome 3

Outcomes will be assessed using a single instrument of assessment, practical in nature, which will be contextualised in a business problem to be solved, using the following software applications:

- ◆ spreadsheets
- ◆ databases
- ◆ word processing
- ◆ presentation software
and
- ◆ e-mail, an e-diary and the internet

National Unit Specification: support notes

UNIT Information Technology for Management (Higher)

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 would be suitable for anyone wishing to develop information technology, problem solving and organisational skills. It concentrates on the both the practical aspects of using ICT to solve business problems as well as the theoretical aspects of the use of information in decision making and the effects of ICT on working practices.

This Unit should be taught in the context of a modern business environment and, as such, candidates should be introduced to industry standard office software and hardware and modern office procedures and practices throughout. Throughout the learning and teaching of the component Units of the Course, the use of a simulated organisation is to be encouraged. Learning within a context is more meaningful to most candidates.

Links with the business community would be particularly useful to candidates undertaking this Unit and centres should be encouraged to link the Unit to any work experience or visits.

Outcome 1

Candidates could be given examples of quantitative and qualitative information and be asked to identify the type (quantitative or qualitative) and the source (primary, secondary, external or internal to the organisation).

When learning about features of good information, candidates could be given a problem to solve with related information. Where the information allows the candidate to solve the problem, the good features could be identified. Alternatively, where the information does not allow candidates to solve the problem, the shortcomings could be identified.

Candidates should be aware of the different levels of decision making — strategic, tactical and operational. Examples of areas to which these types of decisions could be applied are given below:

Strategic decision making:

- ◆ e-commerce
- ◆ purchasing
- ◆ pricing
- ◆ information systems security
- ◆ project prioritisation
- ◆ risk management
- ◆ altering organisational structure

Tactical decision making:

- ◆ marketing tactics
- ◆ stock levels

National Unit Specification: support notes (cont)

UNIT Information Technology for Management (Higher)

- ◆ output forecasts
- ◆ staffing levels
- ◆ training provision
- ◆ office layout

Operational decision making:

- ◆ organising leave arrangements
- ◆ scheduling of staff meetings within departments
- ◆ redeployment of staff to ensure production targets are met

Sources of information, both internal and external to the organisation, should be examined and, where possible, candidates should use these different sources, both electronic and paper-based. The use of the internet should be encouraged to reinforce this aspect of knowledge and understanding.

Outcome 2

Candidates should be made aware of new developments in ICT and the impact of these developments on:

- ◆ working practices
- ◆ receiving, processing and transmitting information

Candidates should have access to information on up-to-date legislation relating to:

- ◆ the security of information (including data protection and copyright, designs and patents)
- ◆ computer misuse

They should be able to outline the main features of legislation relating to above categories. Where candidates refer to specific legislative Acts in their responses to questions, these should be the most up-to-date Acts. As this is a constantly changing area, candidates should be encouraged to keep a file on new developments.

Outcome 3

This Outcome forms the core of the Unit and will take the largest proportion of time. It is anticipated that this will be between 50 and 60 hours depending on the level of information technology experience candidates have on entry to the Unit.

It is not intended that any references in the Unit Specification are software specific. All such references should be treated as generic and use in specific software applications should be treated accordingly.

The content for this Outcome will be based on the following:

- ◆ use of the internet, e-mail and an e-diary to source and communicate information
- ◆ creation and/or completion of spreadsheets from partial input to solve given problems
- ◆ creation of and working with relational databases to solve given problems

National Unit Specification: support notes (cont)

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- ◆ production of word-processed documents to communicate results of problem solving to include integration from other software applications
- ◆ use of presentation software

In using software and hardware, candidates should have a knowledge and understanding of input and output devices, loading and exiting applications, recalling, amending, saving and producing hard copy in each software application in specified format, eg formulae view of a spreadsheet. Candidates should also be aware of back-up and safety procedures, security and confidentiality procedures pertaining to computer data, and different ways of protecting equipment and data.

The importance of good file management should be stressed from the outset and should permeate the whole Unit covering the following:

- viewing and sorting files
- searching for files, folders

Candidates should be able to identify problems, access required information, choose and use relevant software to solve business problems and communicate the results. They should be able to use the software in ways which can simplify data entry, interrogation and retrieval, for example, in spreadsheets the use of formula palette and the equations editor when constructing 'IF' statements, Hlookup and Vlookup reference functions, and integration of software applications.

Candidates should also be encouraged to use the features of an e-diary and e-mail within the simulated organisation to assist them in planning and organising their own work.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Candidates should be made aware from the outset of the necessity of using ICT in an integrative manner to solve business problems, and should be encouraged to take a positive attitude towards the quality of their own work throughout this Unit. Realistic materials and documentation should be used throughout, and a thematic approach adopted where possible.

Where candidates are studying the Course at Higher level, the teaching of Outcome 2 within this Unit could be integrated with Outcome 2 in *Administrative Services* Unit covering working practices and the work environment. There are also opportunities for an integrative approach with the *Administrative Services* Unit in delivery of Outcome 3 of this Unit. The teaching of preparation of documentation for meetings in Outcome 3 of this Unit could be integrated with Outcome 4 of the *Administrative Services* Unit.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The assessment instrument for this Unit will comprise two parts. Part one will assess Outcomes 1 and 2 and part 2 will assess Outcome 3. Candidates must pass both parts of the assessment to achieve this Unit.

The maximum time allocation for assessment is:

Outcomes 1 and 2	30 minutes
Outcome 3	2 hours 30 minutes

National Unit Specification: support notes (cont)

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Outcomes 1 and 2

This part of the assessment will comprise four structured questions — two questions per Outcome and must be undertaken after completion of both Outcomes 1 and 2 or after completion of the Unit, under controlled, closed book conditions.

The maximum time allocation for this assessment is 30 minutes. The assessment may be undertaken over two sessions. Where two sessions are required, the assessment must be delivered in two parts with the second part unseen.

Where candidates fail to reach the agreed threshold score, re-assessment should follow using an alternative instrument of assessment.

Outcome 3

This part of the assessment will comprise a single, practical instrument which will test the candidate's ability to analyse data and solve a business problem using ICT.

The assessment must be undertaken after completion of the Unit under controlled conditions, with candidates having access to help menus within software applications and/or paper-based IT manuals.

The maximum time allocation for this assessment is 2 hours 30 minutes. This should be carried out over as few sessions as possible.

Where candidates fail to reach the agreed threshold score, re-assessment should follow using an alternative instrument of assessment.

SPECIAL NEEDS

This Unit Specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, September 2003).

National Unit Specification: appendix 1

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The assessment for this Unit will be in two parts. Part 1 will assess all Performance Criteria of Outcomes 1 and 2. Each assessment instrument should sample the content and skills defined below. Each assessment instrument must cover all Performance Criteria of Outcomes 1 and 2.

Knowledge of the content covered at Intermediate 2 is assumed.

<p>1 Explain the role of information in decision making</p>	<ul style="list-style-type: none"> ◆ the nature of information: primary, secondary, internal, external quantitative, qualitative ◆ sources of information ◆ features of good information ◆ types of decisions and types of information required to support decisions: <ul style="list-style-type: none"> — strategic — tactical — operational
<p>2 Describe the impact of ICT on workflow, working practices and management and security of information</p>	<ul style="list-style-type: none"> ◆ the impact of ICT on workflow: <ul style="list-style-type: none"> — speed and accessibility of information — features and advantages of software applications and networks ◆ the impact of ICT on working practices: <ul style="list-style-type: none"> — teleworking — homeworking — hot-desking — video and audio conferencing — web cams and internet meetings ◆ advantages of data management systems to organisations (including electronic file management) ◆ consequences of poor data management ◆ importance of electronic file management ◆ importance of organisational procedures for security and confidentiality of information ◆ current legislation affecting: <ul style="list-style-type: none"> — security and confidentiality of information* — computer misuse* <p>Candidates should be able to outline legislation relating to the above categories.</p>

National Unit Specification: appendix 2

UNIT Information Technology for Management (Higher)

The assessment for this Unit will be in two parts. Part 2 will assess all Performance Criteria of Outcome 3. Each assessment instrument should sample the content and skills defined below. Each assessment instrument must cover all Performance Criteria of Outcome 3.

Knowledge of the content covered at Intermediate 2 is assumed.

<p>3 Use ICT to solve business problems and communicate and present solutions</p>	<p>WORD PROCESSING</p> <ul style="list-style-type: none"> ◆ letters: <ul style="list-style-type: none"> — multi-page — tear off slip ◆ documentation for meetings: <ul style="list-style-type: none"> — notice of meeting and agenda — minutes ◆ reports ◆ newsletters ◆ tables: <ul style="list-style-type: none"> — embed data from a spreadsheet in a table with dynamic linkage — convert text to table — sort lists – three levels — perform calculations – add, subtract, multiply, divide ◆ forms: <ul style="list-style-type: none"> — create automatic form using form fields — work with text fields — work with drop-down list fields — work with checkbox fields — protect a form — delete form fields ◆ working with documents: <ul style="list-style-type: none"> — create and delete footnotes and endnotes — modify content and positioning of existing footnotes and endnotes — insert, display, move bookmark — insert, navigate with, view, delete cross reference — insert, delete section breaks — alter page orientation in different sections — insert headers or footers linked or separated within different sections — format first page differently from subsequent pages — insert and delete comments
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National Unit Specification: appendix 2 (cont)

UNIT Information Technology for Management (Higher)

Knowledge of the content covered at Intermediate 2 is assumed.

<p>3 Use ICT to solve business problems and communicate and present solutions (cont)</p>	<ul style="list-style-type: none"> — insert and delete watermarks — use, create, modify styles — number sections and paragraphs — insert table of contents <p>WORD PROCESSING (cont)</p> <ul style="list-style-type: none"> ◆ mailmerge (from or to database): <ul style="list-style-type: none"> — form letter — mailing labels (on A4 paper) ◆ integrate: <ul style="list-style-type: none"> — data from spreadsheet — dynamically linked chart or graph from spreadsheet — results of database queries ◆ print: <ul style="list-style-type: none"> — complete document — selected part of a document <p>E-MAIL</p> <ul style="list-style-type: none"> — find an e-mail — create folders — automatically manage messages — archive old messages — create automated responses — be aware of e-mail etiquette — send and <i>print e-mail</i> <p>E-DIARY</p> <p>No new content at Higher, but candidates will deal with information regarding availability of attendees which will impinge on dates and times of meetings to be scheduled.</p> <p>INTERNET</p> <ul style="list-style-type: none"> — customise searches — understand use of cookies <p>SPREADSHEETS:</p> <ul style="list-style-type: none"> ◆ working with cells and cell data: <ul style="list-style-type: none"> — cell formatting including conditional cell formatting — comments — add, edit, remove
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National Unit Specification: appendix 2 (cont)

UNIT Information Technology for Management (Higher)

<p>3 Use ICT to solve business problems and communicate and present solutions (cont)</p>	<ul style="list-style-type: none">◆ managing workbooks:<ul style="list-style-type: none">— insert common data or formulae and formats simultaneously (linking worksheets)— insert page breaks◆ working with named cells and ranges of cells:<ul style="list-style-type: none">— modify a range◆ data consolidation:<ul style="list-style-type: none">— summary worksheets/files using 3D references; pivot tables; pivot charts◆ functions:<ul style="list-style-type: none">— countif— round mathematical function— V and H lookups◆ sorting:<ul style="list-style-type: none">— filtering on two criteria— grouping and outlining◆ charts:<ul style="list-style-type: none">— customise data series in rows and columns◆ importing data from external source:<ul style="list-style-type: none">— table from word processing document— data from a database table◆ exporting dynamically linked data:<ul style="list-style-type: none">— link spreadsheet data as a table and/or chart in a word processing document◆ print:<ul style="list-style-type: none">— completed worksheet/s and sections from worksheets in value and formulae view— separate and embedded charts <p>RELATIONAL DATABASES</p> <ul style="list-style-type: none">◆ working with databases:<ul style="list-style-type: none">— use primary and foreign keys— create one to many relationships— enforce referential integrity— cascade updates and deletes— edit and delete relationships— print database relationships
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National Unit Specification: appendix 2 (cont)

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<p>3 Use ICT to solve business problems and communicate and present solutions (cont)</p>	<ul style="list-style-type: none">◆ queries:<ul style="list-style-type: none">— query on minimum of two fields from multiple tables on full or partial text or values within fields— This will involve use of wildcards, ie asterisk and question mark— use AND, OR NOT to join query criteria together to create more complex conditions— use aggregate functions in queries: sum, average, maximum and minimum— use a calculated field— sort on minimum of two fields from multiple tables within query— create a graph from query◆ forms:<ul style="list-style-type: none">— design fields— establish order of data entry— set style and alignment— apply decorative enhancement— insert header and footer— modify properties— move, align, delete and edit components of form— insert graphic◆ reports:<ul style="list-style-type: none">— create report from table or query— use calculation within report as required from the following — sum, average, minimum, maximum— modify report layout to ensure visibility of data— insert report header— insert page header or footer◆ exporting data:<ul style="list-style-type: none">— export data to spreadsheet, word processing and presentation software document◆ print:<ul style="list-style-type: none">— extract/s from database— queries, forms and reports
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National Unit Specification: appendix 2 (cont)

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<p>3Use ICT to solve business problems and communicate and present solutions (cont)</p>	<p>PRESENTATION SOFTWARE</p> <ul style="list-style-type: none">◆ Candidates must be able to:<ul style="list-style-type: none">— advance slides automatically timed to accommodate speaker notes— promote and demote slides and text within slides— import data from the internet— hyperlink to URL◆ create and print notes
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