

National Unit Specification: general information

UNIT Information Technology for Administrators (Intermediate 2)

CODE DM3R 11

COURSE Administration (Intermediate 2)

SUMMARY

This 40-hour Unit is designed to develop skills in the use of spreadsheets, databases and word processing using a problem solving approach. It is suitable for candidates who wish to develop IT skills to pursue a career in business and will prepare them for progression to the study of *Information Technology for Management* Unit at Higher. This Unit is suitable for candidates who already possess basic skills in the use of information technology.

OUTCOMES

1. Use spreadsheets to solve a business problem.
2. Use a flat database to solve a business problem.
3. Use a word processing document to present a solution to a business problem.

RECOMMENDED ENTRY

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

- ◆ Standard Grade Administration at General level
- ◆ *Information Technology for Administrators* at Intermediate 1
- ◆ PC Passport — Beginner

Administrative Information

Superclass: AY

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National Unit Specification: general information (cont)

UNIT Information Technology for Administrators (Intermediate 2)

CREDIT VALUE

1 Credit at Intermediate 2 (6 SCQF Credit points at SCQF level 5*).

*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 Skill components in this Unit.

National Unit Specification: statement of standards

UNIT Information Technology for Administrators (Intermediate 2)

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

Use spreadsheets to solve a business problem.

Performance Criteria

- a) Formats are set up as required.
- b) Data is entered and amended as required.
- c) Data is extracted from worksheets as required and integrated into solution.

OUTCOME 2

Use a flat database to solve a business problem.

Performance Criteria

- a) Fields are created and modified as required.
- b) Records are created and amended as required.
- c) Information is extracted as required and integrated into solution.

OUTCOME 3

Use a word processing document to present a solution to a business problem.

Performance Criteria

- a) Page layout of letter or report is set as required.
- b) Data is entered and amended as required.
- c) Data within document is presented consistently and is fit for purpose.
- d) Data from spreadsheet and database applications is integrated as required.
- e) Mailmerge is carried out as required.

EVIDENCE REQUIREMENTS FOR THIS UNIT

The assessment for this Unit will be holistic and integrative in nature, drawing on knowledge and skills across all Outcomes. It must be undertaken under controlled conditions with candidates having access to help menus within software applications and/or paper-based IT manuals.

Candidates will be required to carry out a process-based administrative task using IT in an integrative way to solve a business problem.

The maximum time allocation for this assessment is 1 hour 30 minutes taken over a maximum of two sessions.

National Unit Specification: statement of standards (cont)

UNIT Information Technology for Administrators (Intermediate 2)

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.

Outcomes will be assessed using a single instrument of assessment, which will tackle a business problem to be solved using the software applications from each of the Outcomes:

- ◆ spreadsheets
- ◆ databases
- ◆ word processing

Candidates will be expected to use the features and functions of spreadsheet and database software applications in conjunction with information from electronic and/or paper based files to solve the given problem. The candidate will present the solution in a word processed document.

Candidates will be given a **partially prepared**, electronic word processed document to complete from the following:

- ◆ letter
- ◆ report

The content in Appendix 1 will be sampled as follows:

The Evidence required will be based on a spreadsheet with a minimum of **two worksheets**. The candidate will be required to create or complete a worksheet with a minimum of **six columns** and **six rows**.

Some of the information required to complete the spreadsheet will be contained in separate worksheets within the file.

Candidates will be required to:

- ◆ select, manipulate and **link data** within these worksheets by using **named cells and**
- ◆ integrate specified data and/or a chart from a worksheet into the word processing document which is to be produced in Outcome 3

Three features of formatting from the list below will be sampled.

(Any feature or combination of features within each bulleted point to count as **one** feature from possible sample.)

- ◆ text alignment, text orientation
- ◆ wrap text, merge cells
- ◆ different fonts, styles, sizes
- ◆ borders around cells, shading within cells
- ◆ currency, date, percentage

National Unit Specification: statement of standards (cont)

UNIT Information Technology for Administrators (Intermediate 2)

The following will be sampled:

either

- ◆ a combined formula

or

- ◆ the IF function

and

- ◆ an absolute cell reference

and

- ◆ **two or three** from the following list of formulae and functions:

- add
- subtract
- multiply
- divide
- sum
- average

and

- ◆ **one** function from the following:

- maximum
- minimum
- count

Candidates will be required to carry out **two** amendments from the following list:

(Any amendment or combination of amendments within each bulleted point to count as **one** amendment from possible sample.)

- ◆ alter data
- ◆ insert column/s and/or delete column/s
- ◆ insert row/s and/or delete row/s

and

- ◆ sort data on **one** or **two** criteria

National Unit Specification: statement of standards (cont)

UNIT Information Technology for Administrators (Intermediate 2)

Candidates will be required to create **one** from the following (from data in non-adjacent columns):

- ◆ pie chart
- ◆ bar or column chart (to include comparative charts)
- ◆ line graph

and

- ◆ label the chart meaningfully

Up to five printouts will be required as follows:

(Candidates will be given instructions whether to use gridlines, and row and column headings. Gridlines only for value view printouts and both gridlines and row and column headings for formulae printouts.)

- ◆ separate chart
- ◆ value view/s from sheet/s
- ◆ formula view/s from sheet/s

Candidates will be required to follow instructions given for:

- ◆ page orientation
- ◆ fit to page

and

- ◆ format text and numbers on chart axes either to reduce size of font and/or change text orientation on chart axes if required

Outcome 2

This Evidence will be based on the use of a flat database with a minimum of **six fields** and **10 records**.

Candidates will be required to:

- ◆ create a primary key
- ◆ select fields types as required: text, number, currency, date, autonumber, Boolean logic fields, eg yes/no, true/false, on/off
- ◆ add **and/or** delete field/s and record/s

and

sample **two** from the following operators:

- ◆ like
- ◆ equals
- ◆ greater than
- ◆ less than
- ◆ between
- ◆ greater than or equal to

National Unit Specification: statement of standards (cont)

UNIT Information Technology for Administrators (Intermediate 2)

- ◆ less than or equal to
- ◆ or
- ◆ not

Three printouts will be required as follows:

- ◆ amended database
- ◆ form or report as instructed with a minimum of four fields and a footer. The form or report will be generated from a query. The query will be sorted on two fields and interrogated on two fields
- ◆ the query

Candidates will be required to integrate:

- ◆ specified data from the database (eg the report) into the word processing document to be produced in Outcome 3
- ◆ data to complete the mailmerge in Outcome 3

Outcome 3

Candidates will be given a **partially prepared**, electronic word processed document to complete from the following:

- ◆ letter
- ◆ report

Two printouts will be required as follows:

- ◆ **a printout** of the completed word processed document (**two pages** on completion) — a letter or report

which will include:

— mailmerge

and the solution to the business problem through integration of:

- data and/or chart from the spreadsheet produced in Outcome 1
- data from the database produced in Outcome 2

- ◆ **a printout** of the word processed document showing merge fields

The documents required for Evidence will sample **four** from the following features:
(Any feature or combination of features within each bulleted point to count as **one** feature from possible sample.)

- ◆ change font, font size
- ◆ change margins
- ◆ insert text, delete text, move text
- ◆ bold, italics, underline

National Unit Specification: statement of standards (cont)

UNIT Information Technology for Administrators (Intermediate 2)

- ◆ shade text, border text
- ◆ text alignment: left, right, centre, justify
- ◆ change line spacing
- ◆ search and replace

and

three from the following:

- ◆ indent paragraphs
- ◆ bullets and numbering (customised)
- ◆ page breaks
- ◆ automatic page numbering (customised)
- ◆ insert header or footer

The **final Evidence** required will consist of:

- ◆ **a printout** of the completed word processed document (**two pages** on completion) — a letter or report

which will include:

— mailmerge

and the solution to the business problem through integration of:

- data and/or chart from the spreadsheet produced in Outcome 1
- data from the database produced in Outcome 2

- ◆ **a printout** of the word processed document showing merge fields
- ◆ additional **specified printouts** from the spreadsheet and database applications

The standard to be applied is illustrated in the National Assessment Bank items available for this Unit. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

National Unit Specification: support notes

UNIT Information Technology for Administrators (Intermediate 2)

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 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit should be set in the context of the modern business environment and, as such, candidates should be introduced to industry standard software and hardware and modern administrative procedures and practices throughout.

Candidates should be encouraged to maximise the use of software. Teachers/lecturers should keep candidates informed of current developments in information and communications technology.

This unit concentrates on the functional and problem solving aspects of spreadsheets and databases and the production of word processed documents to integrate and present solutions to business problems.

Knowledge and understanding related to IT is part of the content of the *Administrative Services Unit* at Intermediate 2.

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

Candidates should be able to:

- ◆ locate folders and files on hard drive and external drives
- ◆ open folders and files
- ◆ minimise, restore, maximise and close windows
- ◆ create folders and sub-folders
- ◆ rename folders and files
- ◆ move folders and files
- ◆ multiple copy and multiple delete
- ◆ navigate through drives, folders and sub-folders
- ◆ recognise different file extensions: word processing, spreadsheet, database, presentation software, web page, pdf files, rich text format and image files
- ◆ use backup procedures where appropriate or be aware of backup procedures

Spellcheck and error correction techniques should be used throughout.

Candidates should also be aware that all data presented should be visible. This applies to data across applications and may involve the adjustment of column width and row height in spreadsheets and databases to avoid truncation of data.

National Unit Specification: support notes (cont)

UNIT Information Technology for Administrators (Intermediate 2)

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Throughout the learning and teaching of the Units of the Course, the use of a simulated office is to be encouraged. Learning within a particular context is more meaningful to most candidates.

A problem solving, integrative approach should be adopted when teaching this Unit and candidates should be encouraged to take a positive attitude to the quality of their own work.

The content of this Unit should be contextualised in tasks and activities which an administrator at an intermediate level would be expected to carry out. Where candidates are taking the Intermediate 2 Course in Administration it would be good practice to take into account the knowledge and understanding topics in the *Administrative Services* Unit when delivering this Unit (in particular Outcome 3 which deals with activities in different departments in a firm). For example, the candidate could be asked to use spreadsheets to complete business documents, run a related query on a customer or supplier database and present the extracted information in a letter or report.

The candidate should be able to:

- ◆ decide which software application is most appropriate for the given tasks and produce required output
- ◆ select and manipulate the information necessary for problem solving from existing electronic and paper-based files and include this information in the creation of a spreadsheet/worksheet, database file or word processed document as required
- ◆ integrate required information into a coherent word processed document from spreadsheet, database and word processing files as appropriate

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

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.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The assessment for this Unit will be holistic and integrative in nature, drawing on knowledge and skills across all Outcomes. It must be undertaken under controlled conditions with candidates having access to help menus within software applications and/or paper-based IT manuals.

Candidates will be required to carry out a process based task using IT in an integrative way to solve a business problem. At Intermediate 2 level candidates are expected to use the software 'as required' to solve the problem. Candidates must use the software 'as instructed' at Intermediate 1 to complete the given task. This is reflected in the wording of the Performance Criteria at each level.

The maximum time allocation for this assessment is 1 hour 30 minutes taken over a maximum of two sessions.

National Unit Specification: support notes (cont)

UNIT Information Technology for Administrators (Intermediate 2)

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).

APPENDIX 1

Information Technology for Administrators (Intermediate 2)

Content delivered at Intermediate 1 has been italicised in the content grid below.

Knowledge of the content covered at Intermediate 1 is assumed.

1 Use spreadsheets to solve business problems	<ul style="list-style-type: none">◆ work with multiple worksheets◆ link data within worksheets using named cells◆ <i>use the following features of formatting:</i><ul style="list-style-type: none">— <i>text alignment</i>— <i>wrap text</i>— <i>different fonts, styles, sizes</i>— <i>currency, date, number to specified decimal places, percentage</i>— <i>merge cells</i>— <i>text orientation</i>— <i>borders around cells</i>— <i>shading within cells</i>◆ <i>carry out the following:</i><ul style="list-style-type: none">— <i>input and edit data</i>— <i>insert and delete column/s</i>— <i>insert and delete row/s</i>— <i>hide and unhide columns and rows</i>— <i>adjust column width and row height</i>— <i>sort data on two criteria</i>◆ <i>use the following formulae and functions:</i><ul style="list-style-type: none">— <i>add</i>— <i>subtract</i>— <i>multiply</i>— <i>divide</i>— <i>sum</i>— <i>average</i>— <i>maximum</i>— <i>minimum</i>— <i>count</i>— <i>the IF function</i><p style="text-align: center;">and</p><ul style="list-style-type: none">— <i>combined formulae</i>— <i>relative and absolute cell references</i>— <i>replication of formulae</i>
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APPENDIX 1 (cont)

<p>1 Use spreadsheets to solve business problems (cont)</p>	<ul style="list-style-type: none"> ◆ <i>create the following charts (from data in adjacent and non-adjacent columns):</i> <ul style="list-style-type: none"> — <i>pie chart</i> — <i>bar or column chart (to include comparative charts)</i> — <i>line graph</i> and — <i>label the charts meaningfully</i> — <i>format text and numbers on chart axes either to reduce size of font and/or change text orientation on chart axes</i> ◆ <i>print worksheets and extracts of worksheets:</i> <ul style="list-style-type: none"> — <i>showing value view</i> — <i>showing formulae view</i> — <i>with and without gridlines</i> — <i>with and without row and column headings</i> — <i>in portrait and landscape orientation</i> — <i>with headers and footers to display name, date, time and filename</i> — <i>to fit to page</i> ◆ <i>print charts:</i> <ul style="list-style-type: none"> — <i>embedded in worksheet</i> — <i>separately</i> ◆ <i>integrate data from a worksheet (including a chart) into a word processing document</i>
<p>2. Use a flat database to solve business problems</p>	<ul style="list-style-type: none"> ◆ <i>create a primary key</i> ◆ <i>select fields types as required: text, number, currency, date, autonumber, Boolean logic fields: yes/no, true/false, on/off</i> ◆ <i>alter properties — field size, date, currency</i> ◆ <i>filter by form (on one and two fields)</i> ◆ <i>filter by selection (on one and two fields)</i> ◆ <i>sort ascending and descending</i> ◆ <i>advanced filter, sort — alphabetic sort on two fields within tables</i> ◆ <i>query the database on one and two fields using the following operators:</i> <ul style="list-style-type: none"> — <i>like</i> — <i>equals</i> — <i>greater than</i> — <i>less than</i>

APPENDIX 1 (cont)

<p>2 Use a flat database to solve business problems (cont)</p>	<ul style="list-style-type: none">— between— greater than or equal to— less than or equal to— or— not— sort the query on two fields◆ create a database form:<ul style="list-style-type: none">— enter, edit, and delete data in a form— insert a footer◆ produce a database report:<ul style="list-style-type: none">— produce reports from selected fields from a table, query and form— insert a footer◆ <i>format:</i><ul style="list-style-type: none">— <i>font, row height, column width</i>— <i>datasheet formatting: background colour, gridline colour, datasheet border</i>◆ <i>hide and unhide columns</i>◆ <i>add and delete field/s and record/s</i>◆ <i>print:</i><ul style="list-style-type: none">— <i>database</i>— <i>specified records (result of filter and query)</i>— <i>specified fields</i>— forms— reports◆ <i>integrate data from the database (eg the database report) into a word processing document</i>◆ integrate data into a word processing document to complete a mailmerge
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APPENDIX 1 (cont)

<p>3 Use word processing documents to present solutions to business problems</p>	<ul style="list-style-type: none">◆ <i>create and complete:</i><ul style="list-style-type: none">— <i>letters (one and two-pages)</i>— <i>business reports (showing: terms of reference, procedure, findings, conclusions and recommendations)</i>◆ <i>use the following features within the word processing documents:</i><ul style="list-style-type: none">— <i>select and change font, font size</i>— <i>set and change margins</i>— <i>insert text, delete text, move text</i>— <i>carry out manuscript corrections</i>— <i>use bold, italics, underline</i>— <i>align text: left, right, centre, justify</i>— <i>set and change line spacing</i>— <i>use default tab</i>— <i>search and replace text</i>— <i>customise bullets and numbering</i>— <i>insert graphic</i>— <i>insert headers and footers with name, date, time and filename</i>— <i>use spellcheck and error correction techniques</i>— <i>shade text</i>— <i>border text</i>— <i>indent paragraphs</i>— <i>insert page breaks</i>— <i>customise automatic page numbering</i>◆ <i>mailmerge in letters and reports</i>◆ <i>integrate:</i><ul style="list-style-type: none">— <i>data (including a chart) from a spreadsheet</i>— <i>data from a database</i>◆ <i>print:</i><ul style="list-style-type: none">— <i>completed document</i>— <i>document showing merge fields</i>
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