

## National Unit Specification: general information

**UNIT** Spreadsheets (Intermediate 1)

**NUMBER** DC9R 10

**COURSE** PC Passport

### SUMMARY

This unit is designed to enable candidates to develop basic spreadsheet skills. Candidates will learn to create, save and print a simple spreadsheet (such as a budget). Candidates will also acquire simple skills relating to computer hardware and software.

### OUTCOMES

- 1 Use a computer system to perform basic tasks related to spreadsheets.
- 2 Create a simple spreadsheet for a specific purpose.
- 3 Perform basic analysis on spreadsheet data.

### RECOMMENDED ENTRY

No previous knowledge or experience of computer hardware or computer software is required.

### CREDIT VALUE

1 credit at Intermediate 1 (6 SCOTCAT points SCQF level 4\*)

*\*SCOTCAT 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 SCOTCAT points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

---

## Administrative Information

**Superclass:** CD

**Publication date:** August 2003

**Source:** Scottish Qualifications Authority

**Version:** 01

© Scottish Qualifications Authority 2003

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Additional copies of this unit specification can be purchased from the Scottish Qualifications Authority. The cost for each unit specification is £2.50. (A handling charge of £1.95 will apply to all orders for priced items.)

## National Unit Specification: general information (cont)

### CORE SKILLS

This unit contributes to IT Core Skills Intermediate 1 level.

Information on the automatic certification of any core skills in this unit is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, publication code BA0906).

## **National Unit Specification: statement of standards**

### **UNIT            Spreadsheets (Intermediate 1)**

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 a computer system to perform basic tasks related to spreadsheets.

##### **Performance criteria**

- a)     The use of computer hardware is effective.
- b)     The use of the operating system is effective.
- c)     The use of help facilities is effective.
- d)     Common file formats are accurately identified.
- e)     Basic terminology relating to hardware, software and spreadsheets is understood and used correctly.

##### **Note on range for the outcome**

Tasks: Navigating folders; saving files; printing files; deleting files; cut, copy and paste cells; load and terminate spreadsheet program.

##### **Evidence requirements**

Performance evidence that the candidate can use a computer system to the standards defined by performance criteria (a) to (c). This will be in the form of an observation checklist or other means of recording candidate performance (such as a video recording).

Evidence of knowledge and understanding will consist of 5 objective questions relating to performance criteria (d) and (e), and underpinning knowledge relating to performance criteria (a) to (c). Candidates are required to produce at least 3 correct answers.

#### **OUTCOME 2**

Create a simple spreadsheet for a specific purpose.

##### **Performance criteria**

- a)     The spreadsheet is created effectively using the basic features of the software.
- b)     The spreadsheet accurately models its defined purpose.
- c)     The presentation of the spreadsheet is clear and consistent with its purpose.
- d)     The spreadsheet is numerically correct.
- e)     Basic functions are correctly described.

## **National Unit Specification: statement of standards**

### **UNIT**            Spreadsheets (Intermediate 1)

#### **Note on range for the outcome**

Purpose: personal.

Features of software: editing features (including undo); formatting features (including cell; row and column formats); functions; formulae.

Functions: general; statistical.

#### **Evidence requirements**

Performance evidence that the candidate can create a simple spreadsheet to the standards defined by performance criteria (a) to (d). Candidates must create a minimum of two spreadsheets for personal use.

Evidence of knowledge and understanding will consist of 5 objective questions relating to performance criterion (e) and the underpinning knowledge relevant to performance criteria (a)

### **OUTCOME 3**

Perform basic analysis on spreadsheet data.

#### **Performance criteria**

- a) Analysis is accurate and results are numerically correct.
- b) Data is appropriately and accurately represented in graphical format.
- c) Basic data analysis functions are correctly identified.
- d) Basic types of chart correctly identified.

#### **Note on range for the outcome**

Data: simple; familiar.

Analysis: numerical; graphical.

#### **Evidence requirements**

Performance evidence that the candidate can perform basic data analysis to the standards defined by performance criteria (a) and (b). Candidates must analyse a minimum of two sets of data, supplied by the assessor.

Evidence of knowledge and understanding will consist of 5 objective questions relating performance criteria (c) and (d) and the underpinning knowledge relevant to performance criteria (a) and (b). Candidates are required to produce at least 4 correct answers.

### **EVIDENCE REQUIREMENTS FOR THE UNIT**

The assessment of knowledge and understanding can be combined into a single instrument of assessment consisting of 15 objective questions relating to outcomes 1, 2 and 3. The distribution of questions should adhere to the evidence requirements for each outcome:

## National Unit Specification: statement of standards

### **UNIT**            Spreadsheets (Intermediate 1)

Outcome 1        5 questions

Outcome 2        5 questions

Outcome 3        5 questions.

The combined pass mark for this assessment is 10 correct answers (out of 15 questions). If a single instrument of assessment is used, it is not necessary to satisfy the pass mark for each outcome. Candidates will be deemed to have achieved all outcomes (with respect to their knowledge and understanding) if their combined score is at least 10 out of 15.

## National Unit Specification: support notes

### UNIT Spreadsheets (Intermediate 1)

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 may be delivered as a stand-alone unit or in combination with other units as part of the PC Passport award at Intermediate 1 level.

This unit is one of a series of units entitled *Spreadsheets*. Similar units exist at Intermediate 2 and Higher levels.

#### ***Corresponding to Outcomes 1-3***

The term “spreadsheet” is used to indicate the use of full-featured applications which display financial or statistical information in the form of tables or charts and usually permit complex analysis of the data. Where the performance criteria refer to effective use this should be ascertained over time and not in one-off set-piece situations.

#### ***Outcome 1***

This outcome relates to the basic tasks candidates must be able to perform in order to make general use of a spreadsheet application. The emphasis is on “basic”. The required tasks are defined in the range. The performance criteria define the standards which should be applied to candidate activity.

Performance criterion (a) requires the candidate to use hardware effectively. At this level there is no requirement that s/he carries out these tasks efficiently – so the speed of completion is not a consideration. However, candidates are required to complete the defined tasks without assistance.

First and foremost in this regard is the need to give them a healthy diet of short typing tasks which will force them into keyboard familiarisation and get them to use modifier keys. Mouse skills or an alternative such as touchpad or pen or a disability aid are also important.

Performance criterion (b) requires candidates to use an operating system effectively. The use of the OS should be no more than that required to carry out the basic tasks defined in the range. For example, candidates are required to use the operating system to load and exit a spreadsheet application. . The operating system tasks set for candidates should also be routine and non-complex; for example, moving from one folder to another is sufficient to demonstrate that the candidate can “navigate folders”. Once again, there is no requirement for candidates to use the OS efficiently.

Performance criterion (c) relates to the help facility of a Spreadsheet application.

Performance criterion (d) requires the student to be aware of some of the most common file formats. For example if using Excel s/he should be aware that the standard extension for the full workbook file is \*.xls, and if saved as a template \*.xlt, others include: text for PC or Mac; CSV (comma separated values (PC or Mac) and SYLK (Symbolic Link). Many of the above files can also be imported eg CSV as can single tables from databases.

## National Unit Specification: support notes (cont)

### UNIT Spreadsheets (Intermediate 1)

Performance criterion (e) relates to basic terminology. Even at this level, candidates are expected to develop a basic technical vocabulary relating to computer hardware, computer software and spreadsheets; however, only the most common terms eg the cell are required to be known by the candidate.

#### *Outcome 2*

This outcome relates to creating a spreadsheet document. The type of information that candidates are expected to deal with should be simple and familiar, and relate to their personal and vocational interests. The performance criteria define the standards which should be applied to candidate activity.

Performance criterion (a) requires candidates to type in text and numbers as requested for a spreadsheet using the basic features of the software at their own pace and using any input device available that suits them. Usually this would be a standard keyboard but it could use handwriting recognition, speech recognition or a specially adapted keyboard. Important points to bear in mind would be to know at this stage what sort of portfolio it is destined for and save and/or print accordingly.

Performance criterion (b) requires candidates to follow the instructions for the exercise in such a way that the final resulting spreadsheet is an accurate model of the situation it purports to represent.

Performance criterion (c) requires that the appearance of the spreadsheet is consistent with its purpose. For example that a personal finance sheet intended for user's own consumption can be made interesting with an amusing graphic while one intended for the bank manager should be more formal.

Performance criterion (d) requires that the document is free from numerical errors. Totals and other calculations should work and there should be no reports of flaws in formulas.

Performance criterion (e) requires that candidates can find and insert basic functions with proper syntax and with sufficient understanding to make use of them where needed. Eg sum, average

#### *Outcome 3*

This outcome relates to manipulating and representing the Spreadsheet data.

Performance criterion (a) requires candidates to analyse data and produce accurate results

Performance criteria (b-d) require the student to understand the simple data supplied, represent it sensibly in rows and columns, make use of appropriate functions to automatically provide such things as totals and finally to present the data in a compelling way with the aid of a few common types of bar chart eg pie charts and histograms

### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

A practical, hands-on approach to learning should be adopted. The emphasis should be on learning-by-doing. Terminology and underpinning knowledge should be introduced in a practical context.

The actual distribution of time between outcomes is at the discretion of the centre. However, the following distribution is suggested:

## National Unit Specification: support notes (cont)

### UNIT            Spreadsheets (Intermediate 1)

Outcome 1	13 hours
Outcome 2	15 hours
Outcome 3	12 hours

Throughout this unit, candidate activities should relate to their personal or vocational interests. For example candidates should be offered exercises involving tables of a general or statistical nature that pertains to their own world – like personal finance accounts and seek where possible a topic of genuine interest to the candidate.

### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

It is recommended that centres combine the assessment of knowledge and understanding into a single objective question paper. Re-assessment should be undertaken by re-assessing the specific outcomes which have not been passed.

Evidence of practical competence should be stored in a portfolio. At the completion of this unit the portfolio should contain a range of evidence, drawn from the evidence requirements for each outcome. This will include an observation checklist and copies of documents for all outcomes.

This material may be stored in paper or electronic format. Centres may choose to store candidate evidence in an electronic portfolio (e-portfolio).

### **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, publication code AA0645).