UNIT   Information Technology (Intermediate 1)

NUMBER   D01D 10

COURSE

SUMMARY
This core skills Unit develops skills in using a computer system to carry out some straightforward processing tasks.

OUTCOMES
1   Use a computer system effectively.
2.   Perform simple processes using a range of application packages.
3.   Carry out searches to extract and present relevant information.

RECOMMENDED ENTRY
While entry is at the discretion of the centre, candidates would normally be expected to have attained Information Technology (Access 3).

CREDIT VALUE
1 Credit at Intermediate 1 ((6 SCQF credit points at SCQF level 4*)

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.

Administrative Information

Superclass: CD

Publication date: March 2004

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Version: 02

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General information (cont)

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).

The attainment of this Unit will lead to the automatic award of:

•   Information Technology at Intermediate 1.

National Unit Specification: statement of standards

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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 effectively.

Performance criteria
a)   Operation of hardware devices is efficient.
b)   Location of data and applications is efficient and accurate.
c)   Use of operating system is effective.

Evidence requirements
Performance evidence that the candidate can use a computer system. Candidates must use a minimum of five hardware devices including the following: mouse; keyboard; monitor, pointer, disk drive, processor.

Candidates must use the operating system to: start up the system; close down the system; launch applications; locate data and applications; use a filing system.

Candidates should use simple tools selected from a range of simple tools such as file managers, print managers and control panels.

OUTCOME 2
Perform simple processes using a range of application packages.

Performance criteria
a)   Processes are carried out efficiently and effectively.
b)   Data is output accurately in an appropriate format.

Evidence requirements
Performance evidence that the candidate can perform the following simple processes: enter; edit; output.

Candidates must use at least three application areas selected from text processing, spreadsheet, database, simulation, graphics, communications, audio/music, video, desktop publishing, programming language, data logging, control, e-mail.

National Unit Specification: statement of standards (cont)

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OUTCOME 3
Carry out searches to extract and present relevant information.

Performance criteria
a)   The use of search facilities is effective.
b)   Data is correctly extracted using two selection criteria.
c)   Information is presented effectively.

Evidence requirements
Performance evidence that the candidate can carry out simple searches and extract and present data. At least two searches must be carried out involving different data sets or different forms of information.

A paper or electronic copy of the presented information should be retained.

National Unit Specification: support notes

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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
The content and context for this core skills Unit should be appropriate to the personal and vocational needs of the candidate.

Core skills Units are stated at five levels of attainment, with activities becoming progressively more demanding in breadth and depth, and in the extent of individual autonomy required. The appendix to this Unit shows the relationship between the levels in *Information Technology*.

Outcome 1
This outcome relates to the effective use of a computer system. Candidates are required to operate hardware efficiently (performance criterion a). Candidates are required to use a keyboard, mouse, monitor, disk drive, processor and printer. Efficient use means that candidates are able to use these devices productively and independently.   Candidates' activities must be consistent with manufacturers' recommended procedures but teachers/lecturers may interpret manufacturers' instructions for candidates. It is not anticipated that candidates will be exposed to manufacturers' documentation.

Candidates are required to locate data and applications (performance criterion b). In the context of data this simply means that they can find data once they have saved it; in the context of applications it means that they can navigate a filing system and find and load an application. For example, candidates should be encouraged to store data in a logical place (such as the 'My documents' folder on Windows PCs) so that it can be easily located and retrieved.

Candidates are required to use an operating system effectively (performance criterion c). Candidates are also required to start up and close down applications; start up and close down the system; use a filing system, and use simple software tools (such as print managers, file managers and control panels). Their use of a filing system should include organising files (naming, copying and deleting) and folders (creating, naming and copying).

Outcome 2
This outcome relates to candidates' skills in performing simple processes using a range of application packages. A wide range of software, from a variety of application areas, can be used. Suitable packages include text processing (such as Word), spreadsheet (such as Lotus), database (such as FileMaker), simulation (such as Flight Simulator), graphics (such as PhotoShop), communications (such as mIRC), audio/music (such as Sound Studio), desktop publishing (such as PageMaker), programming language (such as COMAL) and e-mail (such as Outlook Express). For each package, candidates are required to enter, edit and output data. This will be different for each type of program and these will have to be contextualised in relation to each application area. For example, in the context of an e-mail program, entering data would involve creating a new message; editing would involve changing an existing message or involve removing a message; formatting would involve the layout of the message (such as applying stationary to a message), and output would involve sending a message. Candidates are required to carry out these processes efficiently and effectively (performance criterion a). Candidates should be able to work independently at this level.

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Data must be output in an appropriate format (performance criterion b). This simply means that the basic layout facilities within each package must be used effectively. This will vary from package to package. So, for example, text produced using a word processing program may be heavily formatted (in the form of a letter or memo for example); an e-mail message is normally output in plain text format.

Outcome 3
This outcome relates to candidates' ability to search, extract and present information. The source of the information could be a simple database (created by the candidate or provided by the centre) or a CD-ROM based information source (such as an educational program) or the Internet (such as the World Wide Web). Irrespective of the source, candidates are required to select information which satisfies two criteria (performance criterion b). The criteria should be simple such as key word, fields or filename. The criteria may be issued separately (i.e. one after the other so long as each criterion acts as a filter) or in combination (which may, or may not, involve Boolean operators). For example, a database file may be filtered using criteria on two fields within the database; an electronic encyclopaedia may be searched by progressively applying criteria one after the other; and a Boolean search could be applied to a WWW search engine. Once the information has been located it must be extracted and presented (performance criteria b and c). This will depend on the nature of the information. For example, a subset of a database could simply be formatted and printed; an excerpt from an encyclopaedia could be copied to a clipboard and then inserted into a document; a sound file from the WWW could be downloaded and stored locally. For the purposes of assessment, the searches must be diverse so, for example, two similar searches conducted using similar search criteria and resulting in similar results would not be acceptable. The results of the searches must be presented clearly so that others can understand them.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT
The learning and teaching approaches should encourage candidates to identify the evidence of their attainment and to transfer the skills acquired to other contexts.

Programmes of work in core skills should be designed to engage candidates in the varied and purposeful use of interrelated skills through a range of tasks. These tasks may reflect the candidates' vocational interests or may be of more general interest. It is recommended that these tasks should be negotiated and planned in such a way that the evidence required for assessment is generated in the course of ongoing work rather than as a discrete exercise.

Learning and teaching in core skills should be active and candidate-centred. Candidates should have the opportunity to plan and make decisions for themselves and to show initiative and independence. Activities should provide opportunities to use skills in real situations for real purposes and may be part of projects or practical exercises set within the IT programme or drawn from activities in other vocational and social contexts.

Where the *Information Technology* Unit is being combined with another Unit to create an enhanced learning and teaching programme, care must be taken to ensure that all aspects of each Unit are covered and adequate time must be allowed for the coverage of both Units. Such a programme would create opportunities to consolidate the skills gained in this Unit and may provide further opportunities for transferring/building on skills in *Numeracy* and/or *Communication*.

National Unit Specification: support notes (cont)

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GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The statement of satisfactory performance for each outcome indicates the minimum required for the purpose of summative assessment. However, the number of activities undertaken by the candidate in the course of the Unit should not be limited to those specified for assessment purposes. In awarding the candidate *Information Technology* at Intermediate 1, the teacher/lecturer must be confident that the candidate will be able to demonstrate these skills in any appropriate context and set of circumstances.

Teachers/lecturers must remember to distinguish between their differing roles in formative and summative assessment. In the former, as much help and support as is required by the candidate may legitimately be given by the teacher/lecturer. *Tasks which are used to provide evidence for summative assessment must be completed by the candidate unaided.*

Evidence of attainment should be gathered, wherever possible, from integrated activities, whether this Unit is being studied as a stand alone Unit or is being used in combination with others.

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).

Information Technology Core Skills Units   **Appendix**
Progression chart

Skill	Access 2	Access 3	Intermediate 1	Intermediate 2	Higher
Use a Computer System	Perform basic operations using a computer system.	Perform basic operations using a computer system.	Use a computer system effectively.	Use a computer system effectively.	Use a computer system effectively.
Use IT softwar4e	Perform simple processes using an application package.	Perform simple processes using a range of application packages.	Perform simple processes using a range of application packages.	Perform processes using a range of application packages.	Use software in an unfamiliar context to produce complex information.
Carry out searches	Extract and present information from an electronic source.	Extract and present information from an electronic source.	Carry out simple searches to extract and present relevant information.	Carry out searches to extract and present relevant information.	Carry out searches to extract and present relevant information.