SCOTTISH
QUALIFICATIONS
AUTHORITY

UNIT   Internet (Intermediate 2)

NUMBER   DC9N 11

COURSE   PC Passport

SUMMARY

This unit is designed to enable candidates to develop routine Internet skills. Candidates will learn to use a web browser to search for information and communicate using a range of Internet tools. Candidates will also acquire routine skills relating to computer hardware and software.

OUTCOMES

1   Use a computer system to perform routine tasks related to the Internet.
2   Use Internet facilities to locate information.
3   Use Internet facilities to communicate.

RECOMMENDED ENTRY

Entry is at the discretion of the centre. No previous knowledge or experience of the Internet is required. However, it would be desirable if candidates possessed some previous knowledge or experience of computers before undertaking this unit. This could be evidenced by possession of the IT core skill at Intermediate 1 level.

CREDIT VALUE

1 credit at Intermediate 2 (6 SCOTCAT points at SCQF level 5*)

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

Administrative Information

Superclass: CB

Publication date: August 2003

Source: Scottish Qualifications Authority

Version: 01

National Unit Specification: general information (cont)

CORE SKILLS

This unit contributes to IT Core Skills Intermediate 2 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   Internet (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 a computer system to perform routine tasks related to the Internet.

Performance criteria
a)   The use of computer hardware is efficient and effective.
b)   The use of the operating system is efficient and effective.
c)   Working practices are secure.
d)   Components of an Internet connection are accurately described.
e)   Factors affecting performance of an Internet connection are accurately explained.
f)   Terminology relating to computer hardware, software and the Internet is used correctly.

Note on range for the outcome
Tasks: Navigating folders; create and delete folders; saving, renaming, deleting, moving and copying files; printing web pages; saving web pages; load and terminate browser; open multiple instances of a browser; download a file.
Security passwords; anti-virus protection; backups.

Evidence requirements
Performance evidence that the candidate can use a computer system to the standards defined by performance criteria (a) and (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 10 objective questions relating to performance criteria (d) to (f), and underpinning knowledge relating to performance criteria (a) to (c). Candidates are required to produce at least 7 correct answers.

OUTCOME 2
Use Internet facilities to locate information.

Performance criteria
a)   The selection of a search strategy is efficient and effective in locating the desired information.
b)   Bookmarks are effectively used to record web addresses.
c)   Browser controls and hyperlinks are effectively used to navigate a website.
d)   History facilities are effectively used to re-visit websites.
e)   Facilities are used responsibly.
f)   The syntax of a URL is correctly described.

g)   Search services are correctly described.

National Unit Specification: statement of standards (cont)

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Note on range for the outcome
Internet facilities: Search engines; meta search engines; directories.
Information: text; number; graphic; sound,

Evidence requirements
Performance evidence that the candidate can use Internet facilities to locate information to the standards defined by performance criteria (a) to (e). Candidates must locate a minimum of three websites (or resources) containing information that relates to different contexts and covers at least three of the defined types of information. Each search must involve a minimum of two criteria. The located web pages (or resources) must be printed or stored electronically.

Evidence of knowledge and understanding will consist of 10 objective questions relating to performance criteria (e) and (f) and the underpinning knowledge relevant to performance criteria (a) to (d). Candidates are required to produce at least 7 correct answers.

OUTCOME 3
Use Internet facilities to communicate.

Performance criteria
a)   Facilities are used efficiently and effectively for the purposes of communication.
b)   The communication adheres to the normal standards associated with the facility used and the environment within which the facility is used.
c)   The communication is effective in achieving its purpose.
d)   Communication facilities are used securely and responsibly.

Note on range for the outcome
Internet facilities: e-mail; forum; instant messaging.
E-mail facilities: read message; create message (with attached file); reply to message; forward message; manage message store.

Evidence requirements
Performance evidence that the candidate can use Internet facilities to communicate to the standards defined by performance criteria (a) to (d). Candidates must use e-mail and at least one other defined Internet facility; a minimum of two examples of each facility must be provided. The resulting evidence may be stored on paper or electronically.

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

National Unit Specification: statement of standards (cont)

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EVIDENCE REQUIREMENTS FOR THE UNIT

The assessment of knowledge and understanding can be combined into a single instrument of assessment consisting of 25 objective questions relating to outcomes 1, 2 and 3. The distribution of questions should adhere to the evidence requirements for each outcome:

Outcome 1   10 questions
Outcome 2   10 questions
Outcome 3   5 questions.

The combined pass mark for this assessment is 17 correct answers (out of 25 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 17 out of 25.

National Unit Specification: support notes

UNIT   Internet (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 may be delivered as a stand-alone unit or in combination with other units as part of the PC Passport award at Intermediate 2 level.

This unit is one of a series of units entitled *Internet*. Similar units exist at Intermediate 1 and Higher levels.

Corresponding the Outcome 1-3

The term "Internet" is used to represent the full range of Internet services which includes the World Wide Web, e-mail, file transfer, newsgroups and chat.

Outcome 1

This outcome relates to the routine tasks that candidates must be able to perform in order to utilise the Internet. Routine tasks are those tasks required from a competent Internet user in the workplace. The specific tasks that candidates must be able to perform are defined in the associated range statement. The performance criteria define the standards which should be applied to candidate activity.

Performance criterion (a) requires to the candidate to use hardware efficiently and effectively. The range of hardware used by candidates will vary from centre to centre, but typical hardware would include: keyboard, pointing device (such as a mouse), screen, printer and system unit; candidates will also experience communication hardware (such as modems, routers, network equipment). Effective use of hardware means that, for example, candidates will be able to use the hardware without assistance. They are also expected to complete the prescribed range of activities efficiently, in other words, within an acceptable period of time and without too many attempts. The tasks set for candidates should be non-complex but typical of those tasks expected of employees in a working situation (such as efficiently organising their files using hierarchical folders).

Performance criterion (b) requires candidates to use an operating system efficiently and effectively. The use of the OS should be limited to that required to carry out the tasks defined in the range. At this level, there is a requirement that candidates not only accomplish the task (which relates to effectiveness) but that they also complete the task efficiently – without assistance and within a short period of time. So, for example, it is not acceptable for them to require repeated attempts at copying a file.

Performance criterion (c) relates to security. Candidates' working practices must be secure. They are expected to know about (and adhere to) security policies, and be familiar with the various tools that are used to ensure security (such as virus protection software and the need for regular backups). Note that candidates are not expected to know about the technical aspects of anti-virus software or backups; they are only required to know about the purpose of each and their major functional characteristics.

Candidates are required to know the difference between "good" and "bad" passwords, and appreciate the importance of regularly changing their passwords.

National Unit Specification: support notes (cont)

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Performance criterion (d) relates to the components of an Internet connection. This consists of:

- an Internet Service Provider
- a communication link (such as a telephone line or network cable)
- an Internet access device (such as a PC connected directly or indirectly to the Internet)
- a valid user account (which may be with an ISP or an internal network account).

Candidates are also required to possess a basic knowledge about data communication equipment (such as routers and servers) but this should be limited to the role of each component within a data communication system.

Performance criterion (e) relates to the factors affecting performance of an Internet connection. Factors include:

- client-side factors (such as the speed of the local Internet device – such as a PC)
- server side factors (such as the speed of the remote server)
- communication factors (such as bandwidth).

Candidates are only required to know the effect of each of these components on Internet connection speed; they are not required to know the technical reasons for their effect.

Performance criterion (f) relates to the terminology associated with Internet use (relating to hardware, software and communications). At this level, candidates are expected to possess a wide vocabulary of terms (relating to the Internet) and be familiar with a wide range of routine terms used to describe hardware, software and the Internet.

Outcome 2
This outcome relates to finding information on the Internet. The type of information that candidates are expected to locate should be familiar (but non-trivial) 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 select a search strategy. A search strategy typically includes: selecting the type of search service(s) to be employed; selecting specific search facilities (chosen from the type(s) of service previously selected); selecting the key attributes of the target information; translation of these attributes into appropriate keywords and queries; and the selection of filters to reduce the number of located resources/pages.

Candidates are required to select keywords carefully – and use Boolean operators to link keywords. It is not acceptable at this level for candidates to simply issue a number of individual words, roughly connected with the target information. However, it is not required that candidates carry out very complex searches, involving long strings of keywords connected by complex operators. Note that the corresponding range statement defines the range of search services (which include search engines and meta search engines). Candidates are required to locate a range of information types (text, number, graphic and sound).

National Unit Specification: support notes (cont)

UNIT   Internet (Intermediate 2)

Performance criterion (b) requires candidates to bookmark located resources. Web browsers provide facilities to record URLs and candidates are required to use these facilities to record website addresses. At this level, candidates are expected to organise bookmarks (into folders and sub-folders) so it would not be acceptable for them to create a long list of unorganised URLs.

National Unit Specification: support notes (cont)

UNIT Internet (Intermediate 2)

Performance criterion (c) relates to browser navigation controls. Candidates are expected to be familiar with these controls (such as the back and forward buttons) and be able to use them effectively to move between pages in a website. Similarly, candidates are required to recognise and use embedded hyperlinks. It is not acceptable for candidates to double-click on a hyperlink (since this infers that they are not recognised as hyperlinks). The combined use of browser controls and hyperlinks should enable candidates to effectively navigate a specific website.

Performance criterion (d) requires candidates to use a browser's history facilities. Candidates are expected to know the purpose of the history feature and be able to use it to re-visit websites. It is not acceptable for candidates to seek assistance to locate a website if that site has previously been visited and the associated URL has been stored in the history log.

Performance criterion (e) requires candidates to use the search facilities responsibly. This means that candidates are required to adhere to any acceptable use policies. Breach of any of these policies would constitute failure of this outcome. Responsible use also relates to legal and ethical use (whether this is explicitly stated in the acceptable use policy or not). So, for example, searching for copyright music (for the purpose of illegal download and use) would also result in failure of this outcome.

Performance criterion (f) requires candidates to know the structure of a URL. Candidates must be able to describe the component parts of a URL.

Performance criterion (g) relates to search services. Candidates are required to know and describe the range of search services (search engines, meta engines and search directories). Candidates should know the differences between each type of search service and also know the most popular examples of each.

Outcome 3
This outcome relates to using the Internet to communicate. The associated range statement defines the specific services (e-mail, online forum and instant messaging). Online forums include bulletin boards and community services such as MSN groups.

Performance criterion (a) requires candidates to use the facilities efficiently and effectively. Effective use means that they use the facilities to accomplish a specific task – such as contributing to a specific online forum on engaging in an e-mail dialogue. Candidates' effectiveness should be gauged over an extended period of time – not during a single instance of the use of a specific facility. So, for example, before judging that a candidate can use e-mail effectively, the assessor should observe the candidate's use of e-mail over an extended period and using a variety of examples to judge the candidate. The efficient use of these facilities requires candidates to use them without assistance and without repeated attempts. Note the range of e-mail facilities that must be used. This includes managing a message store which means that candidates are required to organise and maintain their e-mail folders.

National Unit Specification: support notes (cont)

UNIT   Internet (Intermediate 2)

Performance criterion (b) relates to the standards associated with each communication facility. These standards will relate to internal standards (acceptable use policies) and commonly accepted external standards (such as e-mail etiquette). So, for example, posting a rude or insulting message on a community forum would be unacceptable; providing personal details to a stranger on an instant messaging system would be unacceptable; creating a business e-mail which used inappropriate (colloquial) language would be unacceptable.

Performance criterion (c) relates to the effectiveness of the communication. There is no point in adhering to the acceptable use policies and other standards if, ultimately, the communication does not achieve its purpose. So the structure and contents of the communication should be appropriate to the intended audience. For example, exceedingly long e-mails are unlikely to be read by recipients; posting a single message on a forum may not elicit the required response (a follow-up post may be necessary); instant messaging is only effective is everyone is given a change to contribute (and the dialogue is not monopolised by one or two individuals).

Performance criterion (d) relates to the secure and responsible use of communication facilities. Most centres will have an acceptable use policy and candidates are required to adhere to this. Responsible use also relates to the candidate's conduct while s/he is online. For example, it is not acceptable for candidates to post personal information on a public bulletin board (whether this is part of an acceptable use policy or not). Secure use means that candidate activities to do not jeopardise the security of the centre/workplace. For example, candidates are expected to know about (and comply with) anti-virus and firewall practices; they are expected to know about (and avoid) possible sources of virus infection (such as downloading and running an executable file).

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:

Outcome 1   14 hours
Outcome 2   13 hours
Outcome 3   13 hours

Throughout this unit, candidate activities should relate to their personal or vocational interests. For example, candidates should be permitted to choose online forums (or bulletin boards) which reflect their interests – rather than forums prescribed by their teacher/trainer. Their contribution to these forums should be genuine (rather than contrived) and seek to gain some valid information on 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.

National Unit Specification: support notes (cont)

UNIT   Internet (Intermediate 2)

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 (Outcome 1), copies of web pages (Outcome 2) and copies of Internet communications (Outcome 3).

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

Some of the evidence requirements for this unit (such as practical activities in all three outcomes) should be gathered over an extended period of time. For example, the effective and efficient use of e-mail cannot be judged by observing a single instance of the candidate sending and receiving a message; the candidate's competence should be judged by observing him/her over an extended period sending and receiving a wide range of messages and message types. Similarly, their contribution to an online forum should be judged over an extended period time (during which time they would be expected to post new messages, respond to existing messages, upload a file etc.).

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).