

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

HIGHER NATIONAL UNIT SPECIFICATION

GENERAL INFORMATION

-Unit Number- **8560237**
-Superclass- **CE**
-Title- **INTRODUCING THE INTERNET**

DESCRIPTION

GENERAL COMPETENCE FOR UNIT: Describing and using a range of Internet services (such as e-mail and the World Wide Web) and appreciating the applications of the Internet in various environments.

OUTCOMES

1. Describe the services provided by the Internet;
2. Use a range of Internet services;
3. Search for specific resources on the Internet;
4. Explain the use made of the Internet in various environments.

CREDIT VALUE: 1 HN credit

ACCESS STATEMENT: Access is at the discretion of the centre. No formal qualifications or experience are necessary to undertake this unit.

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Hanover House, 24 Douglas Street, Glasgow G2 7NQ.

Additional copies of this unit may be purchased from SQA (Sales and Despatch section). At the time of publication, the cost is £1.50 (minimum order (£5.00)).

HIGHER NATIONAL UNIT SPECIFICATION**STATEMENT OF STANDARDS****UNIT NUMBER:** 8560237**UNIT TITLE:** INTRODUCING THE INTERNET

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME

1. DESCRIBE THE SERVICES PROVIDED BY THE INTERNET

PERFORMANCE CRITERIA

- (a) The description is complete and includes the main purpose and uses of each service.
- (b) The description is correctly related to software that can be used to access each service.
- (c) The description is technically accurate and concise.

RANGE STATEMENT

Services: electronic mail; World Wide Web; newsgroup; file transfer; chat.

EVIDENCE REQUIREMENTS

Written or oral evidence that the candidate can describe the services provided by the Internet as detailed in performance criteria (a) to (c) for all classes in the range.

OUTCOME

2. USE A RANGE OF INTERNET SERVICES

PERFORMANCE CRITERIA

- (a) The use of each service is effective.
- (b) The use of each service is efficient.
- (c) Network etiquette is known and observed.
- (d) The services are used without assistance.
- (e) Reference to on-line help and printed documentation is effective in resolving problems or uncertainties.

RANGE STATEMENT

Services: electronic mail; World Wide Web; file transfer; newsgroup; chat.

EVIDENCE REQUIREMENTS

Oral or written evidence that the candidate knows network etiquette as detailed in performance criterion (c).

Performance evidence that the candidate can use Internet services as detailed in performance criteria (a) to (e) for all classes in the range. This evidence may be in paper or digital format and must be generated over an extended period. The amount of evidence for each service follows.

A minimum of five e-mail messages must be sent and at least five received on topics relating to the candidate's vocational interests.

A minimum of five pages must be downloaded from the World Wide Web relating to the candidate's vocational interests.

A minimum of two files must be downloaded using the FTP protocol.

A minimum of ten messages must be posted to at least five newsgroups relating to the candidate's vocational or personal interests.

A minimum of one conversation recording the candidate's involvement in a real-time discussion.

OUTCOME**3. SEARCH FOR SPECIFIC RESOURCES ON THE INTERNET****PERFORMANCE CRITERIA**

- (a) The range of search facilities available on the Internet is identified.
- (b) The selection of search facility is appropriate to the nature of the required information.
- (c) Syntax rules for conducting a search are identified and observed.
- (d) The use of the search facility is efficient and effective.
- (e) The resource is downloaded to the local machine without loss of data.

RANGE STATEMENT

The range for this outcome is fully expressed within the performance criteria.

EVIDENCE REQUIREMENTS

Written or oral evidence that the candidate can identify the range of search facilities available on the Internet as detailed in Performance Criteria (a) and (b).

Written or oral evidence that the candidate identifies the syntax rules for at least one search service.

Performance evidence that the candidate can search for resources as detailed in performance criteria (c) to (e). A minimum of three diverse resources should be located and downloaded. The resource must be provided in digital or paper format.

OUTCOME**4. DESCRIBE THE USE MADE OF THE INTERNET IN VARIOUS ENVIRONMENTS****PERFORMANCE CRITERIA**

- (a) The descriptions are accurate, clear and concise.
- (b) The descriptions are related to specific contexts.
- (c) The main uses of each service within each context are accurately identified and described.
- (d) Advantages accrued by using the each service are accurately described.
- (e) Limitations of each service are accurately identified.

RANGE STATEMENT

Contexts: personal (including leisure); professional; commercial.

Services: electronic mail; World Wide Web; file transfer; newsgroup; chat.

EVIDENCE REQUIREMENTS

Written or oral evidence that the candidate can describe the uses made of the Internet as detailed in performance criteria (a) to (e) for all classes in the range. At least one example of each context for each service must be supplied.

MERIT

A candidate who achieves all performance criteria for all outcomes will be awarded a pass. A pass with merit may be awarded where the candidate exceeds the criteria for a pass in significant ways.

In the context of this unit, a pass with merit may be awarded if the candidate demonstrates higher order skills in his/her use of the Internet as detailed in Outcomes 2 and 3. In the context of Outcome 2, the candidate would use Internet services with little or no assistance and his/her use would be more efficient and effective than that required for a pass. In the context of Outcome 3, the candidate would demonstrate enhanced efficiency and effectiveness in searching the Internet for specific resources. This would typically be achieved through a detailed knowledge of the range of search services together with an enhanced knowledge of search syntax of several search engines.

ASSESSMENT

In order to achieve this unit, candidates are required to present sufficient evidence that they have met all the performance criteria for each outcome within the range specified. Details of these requirements are given for each outcome. The assessment instruments used should follow the general guidance offered by the SQA assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Accurate records should be made of the assessment instruments used showing how evidence is generated for each outcome and giving marking schemes and/or checklists, etc. Records of candidates' achievements should be kept. These records will be available for external verification.

SPECIAL NEEDS

Proposals to modify outcomes, range statements or agreed assessment arrangements should be discussed in the first place with the external verifier.

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HIGHER NATIONAL UNIT SPECIFICATION**SUPPORT NOTES****UNIT NUMBER:** 8560237**UNIT TITLE:** INTRODUCING THE INTERNET

SUPPORT NOTES: This part of the unit specification is offered as guidance. None of the sections of the support notes is mandatory.

NOTIONAL DESIGN LENGTH: SQA allocates a notional design length to a unit on the basis of time estimated for achievement of the stated standards by a candidate whose starting point is as described in the access statement. The notional design length for this unit is 40 hours. The use of notional design length for programme design and timetabling is advisory only.

CONTENT/CONTEXT

Corresponding to outcomes 1–4

This unit is the first in a series of units (at Higher National level) relating to the Internet. Other units encompass technical support and on-line publishing. No previous knowledge or skills are required prior to undertaking this unit although a general familiarity with computers is desirable (but not essential).

Students will require access to the Internet at various times within the life of this unit. While the use of off-line software is acceptable for certain activities (such as off-line browsing and off-line news reading), on-line activity is a crucial aspect of several performance criteria. To enliven learning, the use of video, audio and multimedia learning aids is recommended. Reference is made to network conduct (Outcome 2) and further information on this is available from the Scottish Qualification Authority. While the distribution of time between the outcomes will vary, students may be expected to complete each outcome within the following timescale:

Outcome 1.....6 hours
Outcome 2.....18 hours
Outcome 3.....8 hours
Outcome 4.....8 hours

Outcome 1

This outcome relates to the services provided by the Internet. Five services are defined within the range statement:

- Electronic mail;
- World Wide Web;
- Newsgroups;
- File transfer;
- Chat.

Students are required to describe each service (performance criterion a) and the description will include the purpose and uses of each service. In the context of the World Wide Web (WWW), in addition to the general description of the Web students would also explain its purpose together with a range of contemporary uses.

Students are also required to relate each service to specific Internet tools that can be used to utilise the service (performance criterion b). For example, students are expected to know that news reader software is required to access newsgroups; browsing software is required to access the WWW; an e-mail client program is required to send and receive electronic mail; FTP and e-mail software can be used to transfer files; and an Internet Relay Chat (IRC) client program is required for real-time discussion. It is desirable that students are also aware of contemporary examples of each of these programs. In the context of Windows, an appropriate suite of software might include Microsoft Internet News, Netscape Navigator, Eudora, WS_FTP95 and mIRC (trademarks acknowledged).

The descriptions must be concise and technically accurate (performance criterion c). So, for example, students are required to use terminology correctly and in an appropriate context and the careless or incorrect use of technical terms is not acceptable.

Outcome 2

This outcome relates to students' use of Internet services. Students are required to use the following services:

- Electronic mail;
- World Wide Web;
- Newsgroups;
- File transfer;
- Chat.

Students must make efficient and effective use of each service (performance criteria a and b). So, for example, careless use of on-line time is not acceptable (since it is inefficient) nor is an inability to carry out common tasks using any one of these services (since this is ineffective).

Students are required to know and observe network etiquette (performance criterion c). Netiquette is an informal code of conduct that relates to an individual's behavior when working on a computer network and encompasses such services as e-mail, WWW and newsgroups. A great deal of advice on this topic can be found on the Web and further guidance will be provided by the Scottish Qualification Authority.

For the purposes of assessment, the services must be used without assistance (performance criterion d) but students will require considerable assistance when learning to use the range of Internet tools and services. The use of each service should be simple (but consistent with the prescribed evidence requirements) and sophisticated applications of any service are beyond the scope of this unit. So, for example, attaching files to e-mail messages or transferring files using IRC or configuring a news reader for off-line operation are not appropriate at this level (although these are useful extension activities).

When students are conducting assessment activity they are expected to use on-line help and printed documentation to resolve their problems (performance criterion e). On-line help includes the assistance that is built into computer software (via the help menu) and also on-line help that is provided via the World Wide Web.

Outcome 3

This outcome relates to searching the Internet for specific resources. Students are required to know about the range of search facilities (performance criterion a). A wide range of World Wide Web search engines are available but students are also required to know about search facilities that relate to other services (such as Usenet newsgroups).

Students must select a specific search service to locate a particular resource (performance criterion b). So students should know about the type of information each specific search service provides. The range of search services is growing all the time and students are only required to know about the main search engines (such as Alta Vista, Yahoo and Deja News).

Students are required to use these search services to construct queries (performance criterion c). Most search engines support natural language queries and some kind of Boolean search language and students should be familiar with natural language and Boolean syntax. It is not required that students can construct complex queries but the use of Boolean operators (such as AND, OR and NOT) to combine search criteria is expected.

The use of the search service must be efficient and effective (performance criterion d) so a trial-and-error approach to the construction of search queries or neglecting significant search criteria is not acceptable.

Once a resource is located, it must be downloaded (performance criterion e). The Internet hosts a wide range of resources such as Web pages, newsgroup postings, lists of frequently asked questions (FAQs) and computer programs. Students are required to locate and download some of these resources. For example, a FAQ may be posted on a newsgroup and students should know how to transfer this file from the remote system to the local machine; most browsers have a facility to save a Web page on a local system; and FTP programs are designed to download and upload computer programs.

Outcome 4

This outcome relates to the use of the Internet in various environments. Students are required to describe the personal, professional and commercial use of each of the prescribed Internet services. So, for example, students are required to describe the personal applications of electronic mail, the World Wide Web, file transfer, newsgroups and chat. E-mail might be used to keep in touch with friends of family who live in another country; the WWW could be used to find information on educational topics; file transfer could be used to download the latest version of a particular game; newsgroups could be used to keep up-to-date with a sporting interest; and chat can be used for conversation with like-minded people from around the world. The identified uses can be real or potential depending on the student's previous experience of the Internet.

The descriptions must be clear and concise (performance criterion a) and related

to specific contexts (performance criterion b) so general statements of the potential uses of the Internet are not acceptable. The main uses of each service must be described for each context (performance criterion c). So students are not required to provide an exhaustive list of the uses of the Internet for each environment. For example, the main commercial applications of the World Wide Web can be simply defined as the provision of corporate information via a home page, the provision of product information via other Web pages and on-line ordering. Companies could also use the Web to find information about other commercial enterprises (via their Web pages).

The advantages and limitations of each service must be described (performance criteria d and e). For example, at the time of writing, the advantage of real-time chatting relate to cost (inexpensive) and speed (its immediate) and the limitations relate to the communication medium (written text only).

APPROACHES TO GENERATING EVIDENCE A candidate-centred, resource-based learning approach is recommended. During the course of the unit candidates should have several opportunities to develop their practical skills and should be assessed at appropriate points. Concepts and terminology should be presented in context throughout the unit.

Where the candidate is unsuccessful in achieving an outcome provision should be made for remediation and reassessment.

Written evidence may take various forms including hand-written and word processed text or other forms of written communication that is more suited to students with physical disabilities. Students should not be required to produce a specific form of written text (such as word-processed text) unless this is stipulated within the unit specification or instrument of assessment.

ASSESSMENT PROCEDURES Centres may use the instruments of assessment which are considered by the tutor/trainer to be the most appropriate. Examples of instruments of assessment, which could be used, are:

Outcome 1	Extended response question on the services provided by the Internet. Candidates' response would be in the form of an essay.
Outcome 2	Practical assignment on the use of Internet services. Extended response question on network etiquette. Candidates' response would be in the form of an essay.
Outcome 3	Practical exercise on the use of the Internet's search services. Extended response question on the Internet's search facilities (including the use of syntax). Candidates' response would be in the form of an essay.
Outcome 4	Extended response question on use made of the Internet in various environments. Candidates' response would be in the form of an essay.

PROGRESSION This unit contributes towards SQA Higher National Certificates, Higher National Diplomas and Professional Development Awards. Other units relate to the Internet and students can progress to the units entitled 'Publishing on the Internet' or 'Supporting the Internet'.

REFERENCES

1. Guide to unit writing.
2. For a fuller discussion on assessment issues, please refer to SQA's Guide to Assessment.
3. Information for centres on SQA's operating procedures is contained in SQA's Guide to Procedures.
4. For details of other SQA publications, please consult SQA's publications list.
5. SQA World Wide Web site at <http://www.SQA.org.uk>.

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