

COMPUTING STUDIES
(Access 3)

First edition – published 2004

National Cluster

COMPUTING STUDIES (Access 3)

CLUSTER NUMBER C207 09

CLUSTER STRUCTURE

This Cluster has three mandatory Units:

<i>Unit Code</i>	<i>Unit Title</i>	<i>Credit and Duration</i>
DF33 09	<i>Computer Applications (Access 3)</i>	<i>1 credit (40 hours)</i>
DF34 09	<i>Multimedia Applications (Access 3)</i>	<i>1 credit (40 hours)</i>
DF35 09	<i>Internet Applications (Access 3)</i>	<i>1 credit (40 hours)</i>

This Cluster includes 40 hours over and above the 120 hours for the Units. This may be used for induction, extending the range of learning and teaching approaches, support, consolidation, and integration of learning.

RECOMMENDED ENTRY

Entry is at the discretion of the centre. Candidates doing this Cluster do not need any prior experience, knowledge or qualification in Computing or IT

PROGRESSION

This Cluster or its Units may provide progression in the following way:

- ◆ progression to Intermediate 1 Computing Studies

Administrative Information

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National Cluster Specification: (cont)

COMPUTING STUDIES (Access 3)

CORE SKILLS

This Cluster gives automatic certification of the following,

Complete Core Skills for the Cluster: Information Technology Access 3

CREDIT VALUE

Access 3 Computing Studies is allocated 18 SCQF credit points at SCQF level 3.

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.

National Cluster Specification: Cluster details

COMPUTING STUDIES (Access 3)

RATIONALE

In recent years, computing has played an increasingly important role in society. The influence of computer and information systems has been pervasive, affecting work, home and leisure activities. As a result, it is increasingly important that all members of our society should have an understanding of the basics of this subject area.

The Computing and Information Technology framework seeks to address this through coherent provision ranging from Access level to Advanced Higher level. Access level is the foundation of the framework and the Cluster of Units aims to provide basic knowledge and skills and permit progression to Intermediate 1 and beyond.

It is anticipated that the programme will be attractive to a wide range of potential candidates, but particularly to candidates who wish to acquire basic skills and those with no previous experience of IT.

The importance of both knowledge and understanding, and related practical skills are reflected in the two Outcomes of each Unit. The ability to combine knowledge and understanding and practical skills to solve problems is a key theme of the Cluster.

AIMS

The aims of the Cluster are to develop:

- ◆ basic knowledge and understanding of information technology concepts
- ◆ basic practical skills in the use of computer hardware and software
- ◆ ability to solve basic problems by applying knowledge, understanding and practical skills
- ◆ basic awareness of the professional, social, ethical and legal implications of IT
- ◆ ability to communicate basic IT concepts clearly and concisely using appropriate terminology
- ◆ interest, confidence and enjoyment in the use of computer hardware and software

Related to these aims, and underlying the Cluster are a number of **unifying themes** which are developed and exemplified throughout the Units of the Cluster. These themes are:

- ◆ technological development and progress
- ◆ social, professional, ethical and legal implications
- ◆ the relationship between software and hardware
- ◆ computing terminology
- ◆ problem solving skills

The Cluster assumes no prior learning and is designed to provide progression to the Computing Studies Course at Intermediate 1 level.

National Cluster Specification: Cluster details (cont)

COMPUTING STUDIES (Access 3)

CLUSTER CONTENT

The Cluster is made up of three mandatory Units, *Computer Applications*, *Multimedia Applications*, and *Internet Applications*.

The purpose of the *Computer Applications* and *Multimedia Applications* Units is to provide candidates with the opportunity to develop and consolidate basic skills in a number of standard application packages. This includes word processing, spreadsheets, simple databases, graphics packages, desktop publishing, presentation software and multimedia applications. While working with these packages, candidates should develop an appropriate level of confidence in using computer terminology correctly, and an awareness of the social, ethical, professional and legal implications of their use.

The third Unit is intended to provide candidates with an introduction to the use of the Internet as a source of information and an awareness of the opportunities and dangers offered by the Internet. Candidates will develop practical skills in accessing information from the Internet, using electronic mail and simple web page creation.

To ensure consistency of terminology, the meanings of the technical terms used throughout this documentation (including the Unit Specifications) were taken from the British Computer Society's publication *A Glossary of Computing Terms*, 10th edition, pub. Addison-Wesley, 2002. This glossary of terms will be used as a reference for all internal and external assessments, and its use is encouraged in all teaching and learning activities.

Relationship between the Cluster and its component Units

While these Units are valuable in their own right, candidates will gain considerable additional benefit from completing the whole Cluster:

- ◆ taken together, the Units offer opportunities for delivery as a coherent, integrated and holistic experience
- ◆ balance and breadth of experience and learning will be promoted
- ◆ practical activity may be integrated across Units
- ◆ the candidates abilities to sustain effort and concentration will be developed

The Unit Specifications have been fully developed and provide detailed support notes to assist assessors in their understanding of Outcomes and Performance Criteria. The detailed content for each Unit is provided in the form of a table in the content/context section of each Unit Specification.

ASSESSMENT

To achieve the award of the Cluster, the candidate must pass all the Units.

Each Unit Specification gives information on Unit assessment.

National Cluster Specification: Cluster details (cont)

COMPUTING STUDIES (Access 3)

APPROACHES TO LEARNING AND TEACHING

The aims of the Cluster are to develop:

- ◆ basic knowledge and understanding of information technology concepts
- ◆ basic practical skills in the use of computer hardware and software
- ◆ ability to solve basic problems by applying knowledge, understanding and practical skills
- ◆ basic awareness of the professional, social, ethical and legal implications of IT
- ◆ ability to communicate basic IT concepts clearly and concisely using appropriate terminology
- ◆ interest, confidence and enjoyment in the use of computer hardware and software

At this level, the emphasis is on breadth rather than depth.

There is no prescriptive ‘best way’ to approach the teaching and learning of this Cluster. However, a holistic approach is recommended which relates each of these aims to the facts and concepts being studied. Within each Unit, there is a combination of knowledge and understanding with practical problem solving skills. Teachers and lecturers are encouraged to provide learning experiences which blend together the acquisition of knowledge and understanding, the development of practical skills and opportunities to apply these to solve problems.

Throughout the Cluster, reference should be made to professional, social, ethical and legal implications where appropriate, and to ‘real world’ applications. Candidates should be encouraged to develop the use of appropriate terminology to communicate their understanding.

Related to the Cluster aims, a number of unifying themes have been identified which should be used to bring a coherence to the Cluster. Most of these themes can be illustrated and exemplified in each of the Units of the Cluster. These themes are:

- ◆ technological development and progress
- ◆ social, professional, ethical and legal implications
- ◆ the relationship between software and hardware
- ◆ computing terminology
- ◆ problem solving skills

The Cluster has been designed to articulate with the Intermediate 1 Computing Studies course. The content/context grids in the support notes for the mandatory Units in the Intermediate 1 Course show how the content and contexts at Intermediate 1 extend and deepen the Access 3 Unit content. This should assist assessors who have to work with bi-level classes to design an appropriate teaching plan.

Candidates will require individual access to appropriate computer hardware and software throughout the Cluster. More detailed guidance is given within the support notes for each Unit.

Assessors are encouraged to make use of the wide range of teaching and learning materials (both paper-based and electronic) which have been developed to support this Cluster.

National Cluster Specification: Cluster details (cont)

COMPUTING STUDIES (Access 3)

APPROACHES TO LEARNING AND TEACHING (cont)

The Units of the Cluster may be taught sequentially or in parallel (or a combination of these), although the sequence *Computer Applications, Multimedia Applications, Internet Applications* is recommended.

The teaching and learning and internal assessment of the three Units of the Cluster is designed to be completed within 120 hours. As centres are advised to allow 160 hours for the delivery of a National Cluster, this leaves up to 40 hours of flexible time.

Use of the additional 40 hours

Appropriate activities for this time include:

- ◆ an introduction to the Cluster
- ◆ revision of required prior learning
- ◆ consolidation and integration of learning
- ◆ remediation and re-assessment
- ◆ formative assessment (class tests)
- ◆ extending the range of study

National Cluster Specification: Cluster details (cont)

COMPUTING STUDIES (Access 3)

SPECIAL NEEDS

This Course 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 alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, September, 2003).

COMPUTING IN A BROADER CONTEXT

A number of national initiatives and programmes have been designed to promote themes that are important to contemporary society such as citizenship and enterprise. These themes contribute to individual subjects and Courses by making connections beyond the subject boundaries and enrich the learning experience. Similarly, the specialist knowledge and skills developed through study of a particular subject contributes to the understanding of these themes.

There are opportunities within Computing Studies (Access 3) for assessors to help candidates make links to cross-curricular themes. Some suggestions are given below.

Cross-curricular theme	Course content
Education for Citizenship	Developing citizenship skills by location, using and communicating ideas using ICT. Understanding of the WWW (World Wide Web) as a useful source of public information.
Health Education	Understanding of the social and personal dangers related to the WWW.
Financial Education	<ul style="list-style-type: none">◆ Internet banking◆ travel and leisure◆ shopping online◆ advertising online

National Unit Specification: general information

UNIT Computer Applications (Access 3)

NUMBER DF33 09

CLUSTER Computing Studies (Access 3)

SUMMARY

This Unit is designed to develop knowledge and understanding of computer applications (word processing, spreadsheets, databases and graphics) and practical skills related to computer applications, through the use of contemporary hardware and software. This knowledge and understanding, and these practical skills, may then be applied by the candidate to solve practical problems related to computer systems. It is designed for candidates undertaking the Access 3 Computing Studies Cluster, but is also suitable for anyone wishing to develop basic competence in word processing, databases, spreadsheets and computer graphics.

OUTCOMES

1. Demonstrate knowledge and understanding of basic facts and terminology relevant to the features, purposes and uses of four specified areas of computer applications.
2. Demonstrate basic practical skills in the context of computer applications, using contemporary hardware and software.

RECOMMENDED ENTRY

Entry is at the discretion of the centre. Candidates doing this Unit do not need any prior experience, knowledge or qualification in Computing Studies or IT.

Administrative Information

Superclass: CD

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National Unit Specification: general information (cont)

UNIT Computer Applications (Access 3)

CREDIT VALUE

1 credit at Access 3 (6 SCQF credit points at SCQF level 3*).

**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

This Unit gives automatic certification of the following:

Complete Core Skills for the Unit: Information Technology Access 3

National Unit Specification: statement of standards

UNIT Computer Applications (Access 3)

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

Demonstrate knowledge and understanding of basic facts and terminology relevant to the features, purposes and uses of four specified areas of computer applications.

Performance Criteria

- a) Basic computing terminology is used appropriately.
- b) Identification of uses types and features of applications software is correct.

Evidence Requirements

Written or oral evidence that the candidate can identify the features, purposes and uses of computer applications correctly. Evidence should be obtained using a knowledge test set at an appropriate point or points in the Unit, under examination conditions. The test(s), lasting no more than 45 minutes in total, must sample content in each of the following areas:

- ◆ word processing
- ◆ spreadsheets
- ◆ databases
- ◆ graphics packages

(The content statements are reproduced for convenience as a table in the support notes for this Unit).

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: statement of standards (cont)

UNIT Computer Applications (Access 3)

OUTCOME 2

Demonstrate basic practical skills in the context of four specified areas of computer applications, using contemporary hardware and software.

Performance Criteria

- a) Basic features of hardware are used with guidance.
- b) Basic features of software are used with guidance.
- c) Practical tasks are carried out in familiar contexts.

Evidence Requirements

Observation checklist showing that the candidate has demonstrated practical skills at an appropriate level in the following contexts:

- ◆ word processing
- ◆ spreadsheets
- ◆ databases
- ◆ graphics packages

Hard copy evidence should be provided for all four of these activities.

These practical skills may all be demonstrated in a single extended task, or a number of smaller tasks.

The practical skills should be demonstrated in the context defined in the content statements.

The candidate will be allowed access to books, notes, online help and teacher guidance while completing the task(s).

(The content statements are reproduced for convenience as a table in the support notes for this Unit.)

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 Computer Applications (Access 3)

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 for this Unit is detailed below (and also in the National Course Specifications: Course details.)

Content Statements: All packages
Demonstration of the following practical skills in an appropriate application package: <ul style="list-style-type: none">◆ start/open application package◆ create new document◆ open existing document◆ save document◆ close/quit/exit from package
Correct identification of the following terminology: new, open, save, close/quit/exit, print

Content Statements: Word processing
Demonstration of the following practical skills in an appropriate application package: <ul style="list-style-type: none">◆ edit text (insert, amend, delete)◆ format text<ul style="list-style-type: none">- font, size, style, colour- justify text (left, right, full, centre)◆ select character, word, block of text◆ add graphics (clip art, photo, other graphics)◆ undo◆ move, resize added object◆ use spellcheck
Correct identification of the following terminology: spell check, enter, delete, undo, font, size, bold, italic, underline, centre, clip art
Identification of personal uses for word processing
Identification of changes made to a document

National Unit Specification: support notes (cont)

UNIT Computer Applications (Access 3)

Content Statements: Spreadsheet
Demonstration of the following practical skills in an appropriate application package: <ul style="list-style-type: none">◆ enter numbers, text, formulas◆ delete cell contents◆ insert content in named cells◆ select cell, row, column, block, whole spreadsheet◆ change font, size, style, text colour◆ centre text◆ automatic addition of a set of numbers
Correct identification of the following terminology: cell, row, column, spreadsheet
Identification of uses for spreadsheets
Reading simple information from a simple spreadsheet

Content Statements: Database
Demonstration of the following practical skills in an appropriate application package: <ul style="list-style-type: none">◆ browse/navigate◆ add a record◆ enter data◆ delete a record◆ sort on single field◆ search on single field
Correct identification of the following terminology: database, search, sort, add, delete
Identification of personal uses for a database
Obtaining information from a database

National Unit Specification: support notes (cont)

UNIT Computer Applications (Access 3)

Content Statements: Graphics
Demonstration of the following practical skills in an appropriate application package: Use of basic tools and operations (including the following as available) to: <ul style="list-style-type: none">◆ change/manipulate an image◆ create a new image
Tools <ul style="list-style-type: none">◆ rectangle◆ ellipse◆ line◆ freehand◆ text◆ library of standard shapes
Operations: <ul style="list-style-type: none">◆ use rubber/delete◆ select object or block◆ set and change attributes (colour, pattern, thickness)◆ insert clip art or other image◆ move◆ resize

National Unit Specification: support notes (cont)

UNIT Computer Applications (Access 3)

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Candidates will require individual access to appropriate computer hardware and software throughout this Unit.

The two Outcomes should be delivered in an integrated way rather than sequentially. For Outcome 2, the practical activities should be taught and used to illustrate and exemplify the knowledge and understanding required for Outcome 1.

The amount of time spent on each area of content will vary depending on the teaching methodology used and the ability and prior experience of the candidates. However, the following times are suggested as a rough guide:

word processing	9 hours
spreadsheets	9 hours
databases	9 hours
graphics	9 hours

1½ hours should be set aside to:

- ◆ administer the Outcome 1 test
- ◆ gather evidence for Outcome 2

A further 2½ hours is allowed for remediation and re-assessment if required.

If the Unit is delivered as part of a Cluster, the Cluster documentation will provide further information on teaching and learning in a Cluster context, including the identification of a number of 'themes' to facilitate holistic learning across the Cluster.

National Unit Specification: support notes (cont)

UNIT Computer Applications (Access 3)

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

National Assessment Bank tests have been created specifically to assess Outcome 1 of the Unit. This assessment consists of a set of short answer tests, and must be conducted under examination conditions. In order to gain success in this Outcome, the candidate must achieve at least the cut-off score for the test. If a centre wishes to design its own assessment for this Unit, they should be of a comparable standard.

Outcome 2 requires the candidate to demonstrate practical skills while using contemporary hardware and software. These practical skills may be demonstrated as a single extended task or a number of relatively small tasks. The task(s) will normally be undertaken by the candidate as part of the teaching and learning activities of the Unit, rather than as separate formal assessment activities. The candidate will be allowed access to books, notes and teacher help while completing the task(s). The practical skills should be demonstrated in the context defined in the content statements.

To gain success in this Outcome, the candidate must demonstrate practical skills in the following contexts:

- ◆ word processing
- ◆ spreadsheets
- ◆ databases
- ◆ graphics

Hard copy evidence should be provided for all four activities. A single page of output from each type of software showing evidence of practical skill at the appropriate level is sufficient evidence.

A pro-forma observation checklist for Outcome 2 is provided in the National Assessment Bank materials.

All evidence must be retained by the centre. The assessment of this Unit is subject to moderation by SQA.

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).

National Unit Specification: general information

UNIT Multimedia Applications (Access 3)

NUMBER DF34 09

CLUSTER Computing Studies (Access 3)

SUMMARY

This Unit is designed to develop knowledge and understanding of the principles of multimedia application software and develop practical skills in the use of contemporary hardware and multimedia software. This knowledge and understanding, combined with practical skills, may then be applied by the candidate to solve problems related to multimedia applications. It is designed for candidates undertaking the Access 3 Computing Studies Cluster, but is also suitable for anyone wishing to develop basic competence in handling multimedia elements, and using presentation, desktop publishing and web authoring software.

OUTCOMES

1. Demonstrate knowledge and understanding of the principles, features and purposes of multimedia application software and hardware.
2. Demonstrate practical skills in the use of multimedia software and hardware.

RECOMMENDED ENTRY

Entry is at the discretion of the centre, candidates doing this Unit do not need any prior experience, knowledge or qualification in Computing Studies.

Administrative Information

Superclass: CE

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National Unit Specification: general information (cont)

UNIT Multimedia Applications (Access 3)

CREDIT VALUE

1 credit at Access 3 (6 SCQF credit points at SCQF level 3*).

**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

This Unit gives automatic certification of the following:

Complete Core Skills for the Unit: Information Technology Access 3

National Unit Specification: statement of standards

UNIT Multimedia Applications (Access 3)

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

Demonstrate knowledge and understanding of the principles, features and purposes of multimedia application software and hardware.

Performance Criteria

- a) Basic multimedia terminology is used appropriately.
- b) Descriptions and identifications are technically accurate and concise.

Evidence Requirements

Written or oral evidence that the candidate can describe and explain the principles, features and purposes of multimedia software and hardware. Evidence should be obtained using a knowledge test set at an appropriate point or points in the unit, under examination conditions. The test(s), lasting no more than 45 minutes, must sample content in each of the following areas:

- ◆ uses of a multimedia software
- ◆ hardware factors
- ◆ features of multimedia software

(The content statements are also reproduced for convenience as a table in the support notes for this Unit.)

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: statement of standards (cont)

UNIT Multimedia Applications (Access 3)

OUTCOME 2

Demonstrate practical skills in the use of multimedia software and hardware.

Performance Criteria

- a) Multimedia hardware is used with guidance to capture graphics.
- b) Desktop publishing and presentation software are used with guidance to create simple multimedia documents.
- c) Documents created incorporate text and graphics.
- d) Multimedia games or encyclopaedias are used with guidance.

Evidence Requirements

Observation checklist showing that the candidate has carried out practical activities in the following contexts:

- ◆ use of multimedia games or encyclopaedias
- ◆ data capture (graphics)

and the following types of software:

- ◆ presentation software
- ◆ desktop publishing software

Hard copy evidence should be provided for **both** types of software:

These practical skills may all be demonstrated in a single extended task, or a number of smaller tasks. The candidate will be allowed access to books, notes, online help and teacher guidance while completing the task(s).

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 Multimedia Applications (Access 3)

This part of the Unit Specification is offered as guidance.

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 for this Unit is detailed below (and also in the National Course Specifications: Course details.)

Content Statement: Uses of multimedia software
Description of uses of multimedia software: <ul style="list-style-type: none">◆ games◆ multimedia encyclopaedias◆ presentations◆ web pages

Content Statement: Hardware Factors
Identification of the hardware devices for: <ul style="list-style-type: none">◆ capturing text: (keyboard, mouse)◆ capturing graphics: (scanner, digital camera)◆ capturing audio: (microphone)
Identification of hardware required and method of obtaining text/graphics/audio from the World Wide Web
Identification of the following backing storage media: <ul style="list-style-type: none">◆ hard disk◆ floppy disk◆ CD-ROM◆ CD-R◆ CD-RW
Identification of common file types: <ul style="list-style-type: none">◆ text◆ graphics◆ video◆ sound

National Unit Specification: support notes (cont)

UNIT Multimedia Applications (Access 3)

Content Statement: Features of Multimedia Software
Identification of the following types of multimedia applications: <ul style="list-style-type: none">◆ presentation◆ desktop publishing
Identification of the following skills in each of the above applications: <ul style="list-style-type: none">◆ creating a new document◆ using a template◆ inserting text◆ inserting graphic/photograph◆ page formatting (landscape/portrait/margins/paper size)◆ saving◆ printing
Identification of the facilities of software: text <ul style="list-style-type: none">◆ font, size, style (italics, underline, bold), colour, tabs◆ justify text (left, right, full, centre)◆ use bullet points graphic <ul style="list-style-type: none">◆ scale (resize)◆ crop◆ rotate◆ colour

National Unit Specification: support notes (cont)

UNIT Multimedia Applications (Access 3)

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Candidates will require individual access to appropriate computer hardware and software throughout this Unit.

The two Outcomes should be delivered in an integrated way rather than sequentially. For Outcome 2, one practical activity should be taught and used to illustrate and exemplify the knowledge and understanding required for Outcome 1.

The amount of time spent on each area of content will vary depending on the teaching methodology used and the ability and prior experience of the candidates. However, the following times are suggested as a rough guide:

uses of multimedia software	6 hours
data capture	6 hours
features of a multimedia document	4 hours
presentation software	10 hours
desktop publishing software	10 hours

1½ hours should be set aside to:

- ◆ administer the Outcome 1 test
- ◆ gather evidence for Outcome 2

A further 2½ hours is allowed for remediation and re-assessment if required.

If the Unit is delivered as part of a Cluster, the Cluster documentation will provide further information on teaching and learning in a Cluster context, including the identification of a number of ‘themes’ to facilitate holistic learning across the Cluster.

National Unit Specification: support notes (cont)

UNIT Multimedia Applications (Access 3)

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

National Assessment Bank tests have been created specifically to assess Outcome 1 of the Unit. This assessment consists of a closed book test, and must be conducted under examination conditions. In order to gain success in this Outcome, the candidate must achieve at least the cut-off score for the test. If a centre wished to design its own assessments for this Unit, they should be of a comparable standard.

Outcome 2 requires the candidate to demonstrate practical skills while using contemporary hardware and software. These practical skills may be demonstrated in a single extended task or a number of relatively small tasks. The task(s) will normally be undertaken by the candidate as part of the teaching and learning activities of the Unit, rather than as separate formal assessment activities. The candidate will be allowed access to books, notes, online help and tutor guidance while completing the task(s). The practical skills should be demonstrated in the context defined in the content statements.

To gain success in this Outcome, the candidate must demonstrate practical skills in the following contexts:

- ◆ use of multimedia games or encyclopaedia

- ◆ data capture (graphics)

and the following types of software:

- ◆ presentation software

- ◆ desktop publishing software

Hard copy evidence should be provided for both types of software. A single page of output from each type of software showing appropriate level of practical skill is sufficient.

A pro-forma observation checklist for Outcome 2 is provided in the National Assessment Bank materials.

All evidence for Outcome 2 should be gathered under 'open book' conditions and must be retained by the centre. The assessment of this Unit is subject to moderation by SQA.

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).

National Unit Specification: general information

UNIT	Internet Applications (Access 3)
NUMBER	DF35 09
CLUSTER	Computing Studies (Access 3)

SUMMARY

This Unit is designed to develop knowledge and understanding of three commonly used parts of the Internet — the World Wide Web, e-mail and chat. In addition, to develop practical skills using the World Wide Web, e-mail, and in the publishing of a simple web page. The knowledge, understanding, and practical skills will then be applied by the candidate to solve routine practical problems related to the Internet. It is designed for candidates undertaking the Access 3 Computing Studies Cluster, but is also suitable for anyone interested in using the World Wide Web and e-mail.

OUTCOMES

1. Demonstrate knowledge and understanding of the basic facts and terminology relevant to the use of the Internet and the dangers associated with the Internet.
2. Demonstrate practical skills in using the World Wide Web, e-mail and simple web page creation.

RECOMMENDED ENTRY

Entry is at the discretion of the centre, candidates doing this Unit do not need any prior experience, knowledge or qualification in Computing Studies.

Administrative Information

Superclass:	CD
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National Unit Specification: general information (cont)

UNIT Internet Applications (Access 3)

CREDIT VALUE

1 credit at Access 3 (6 SCQF credit points at SCQF level 3*).

**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

This Unit gives automatic certification of the following:

Complete Core skills for the Unit: Information Technology Access 3

National Unit Specification: statement of standards

UNIT Internet Applications (Access 3)

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

Demonstrate knowledge and understanding of the basic facts and terminology relevant to the use of the Internet and the dangers associated with the Internet.

Performance Criteria

- a) Basic Internet terminology is used correctly to identify the main features of World Wide Web, e-mail and Internet chat.
- b) Opportunities and dangers associated with these Internet applications are accurately explained.

Evidence Requirements

Written or oral evidence that the candidate can understand and use basic Internet terminology correctly and can explain the dangers associated with using different parts of the Internet.

Evidence should be obtained using a knowledge test set at an appropriate point or points in the Unit, under examination conditions. The test(s), lasting no more than 45 minutes in total, must sample content in each of the following areas:

- ◆ World Wide Web
- ◆ e-mail
- ◆ Internet chat

The content statements are reproduced for convenience as a table in the support notes for this Unit.

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: statement of standards (cont)

UNIT Internet Applications (Access 3)

OUTCOME 2

Demonstrate practical skills in using the World Wide Web, e-mail and simple web page creation.

Performance Criteria

- a) Basic features of hardware are used with guidance.
- b) Basic features of software are used with guidance.
- c) Practical tasks are carried out in familiar contexts.

Evidence Requirements

Observation checklist showing that the candidate has demonstrated practical skills at an appropriate level in the following contexts:

- ◆ World Wide Web
- ◆ e-mail
- ◆ simple web page publishing

Hard copy evidence should be provided for each of these activities. This evidence does not need to be formal documentation — a sample screenshot from each application would be sufficient.

These practical skills should be demonstrated in a number of smaller tasks, and in the context defined in the content statements.

The candidate will be allowed access to books, notes and online help while completing the tasks. The content statements are reproduced for convenience as a table in the support notes for this Unit.

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 Internet Applications (Access 3)

This part of the Unit Specification is offered as guidance.

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 for this Unit is detailed below (and also in the National Course Specifications: Course details).

Content Statement: World Wide Web
<p>Identification of the features of the WWW:</p> <ul style="list-style-type: none">◆ pages of data that can be linked with other pages◆ pages are grouped together in sites, with a main 'home' page◆ pages can contain text, sound, graphics and video/animation◆ number and type of pictures affects the download time◆ pages viewed in a web browser <p>Identification of common WWW and e-mail address endings to include: com, .co.uk, .ac.uk, .org, .net, .gov</p> <p>Identification of the main uses of websites:</p> <ul style="list-style-type: none">◆ provide information and services◆ leisure, including game playing◆ shopping (e-commerce)◆ pages created by individuals for self-expression <p>Identification of features of web browsers to include:</p> <ul style="list-style-type: none">◆ favourites/bookmarks to help remember and locate favourite sites◆ history of pages visited recorded◆ navigation buttons for moving between pages <p>Identification of a search engine as a website that helps locate relevant pages on the WWW by key words</p> <p>Identification of the social/safety implications to include:</p> <ul style="list-style-type: none">◆ provide information and services◆ pop-up adverts◆ inappropriate material can be freely available◆ dangers of passing financial/sensitive information to sites◆ filtering software available to block unsuitable web pages
<p>Identification of methods of accessing websites:</p> <p>Access websites by:</p> <ul style="list-style-type: none">◆ clicking on hyperlinks◆ copying addresses into the address toolbar <p>Find sites by:</p> <ul style="list-style-type: none">◆ copying addresses into the address toolbar◆ typing key word(s) into the search engine <p>Access 'useful' sites to find information including:</p> <ul style="list-style-type: none">◆ post office site, route finder sites, bus/train timetable sites, map site, encyclopædia/dictionary site

National Unit Specification: support notes (cont)

UNIT Internet Applications (Access 3)

Content Statement: E-mail
<p>Identification of the features:</p> <ul style="list-style-type: none">◆ text and pictures sent between people or businesses who have an e-mail address◆ e-mails can be sent to more than one person at a time◆ everyone has their own unique address◆ inbox, outbox and sent items folders help organise e-mails◆ address book used to store e-mail addresses◆ @ sign separates a person's name from the rest of the address <p>Identification of the uses:</p> <ul style="list-style-type: none">◆ allow people and businesses to share information <p>Identification of types of common abbreviation used in e-mails (and chat):</p> <ul style="list-style-type: none">◆ smileys or emoticons, including :-), :- (:-@ :-*◆ acronyms, including asap, brb, btw, f2f, hand <p>Understanding of the social/safety implications and 'etiquette'</p> <ul style="list-style-type: none">◆ e-mail is the most common way to spread viruses◆ spam, unsolicited junk mail◆ blocking of e-mail addresses to reduce spam◆ good manners (etiquette) rules associated with e-mails to include:<ul style="list-style-type: none">- don't type in capitals, it's considered shouting as it's hard to read- don't send rude, threatening or offensive e-mails- say 'hi' (or similar) at start, 'regards' (or similar) at the end- spell check and read through e-mails before sending them- large attachment files before sending them (reduce the size)
<p>Demonstration of the following practical skills:</p> <ul style="list-style-type: none">◆ send a properly addressed e-mail to one person◆ send a properly addressed e-mail to more than one person◆ reply to an e-mail <p>Demonstration of the following practical skills:</p> <ul style="list-style-type: none">◆ add a person's detail to an address book, then send them an e-mail using the address◆ send an e-mail with an attachment
Content Statement: Internet Chat
<p>Identification of the features:</p> <ul style="list-style-type: none">◆ online, interactive text conversations between two or more people <p>Identification of the uses:</p> <ul style="list-style-type: none">◆ people with a common interest can share a 'conversation' over any distance <p>Identification of the main safety rules associated with Internet chat</p> <ul style="list-style-type: none">◆ never give your/friends address/details◆ block out/report anyone they are suspicious of◆ never meet anyone they 'chatted' with
Content Statement: Simple Web Page Creation
<p>Demonstration of the following practical skills:</p> <ul style="list-style-type: none">◆ use software capable of creating a web page to create a simple web page on any topic, including text and graphics.◆ view the page in a web browser

National Unit Specification: support notes (cont)

UNIT Internet Applications (Access 3)

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Candidates will require individual access to appropriate computer hardware and software throughout this Unit.

The two Outcomes should be delivered in an integrated way. For Outcome 2, the practical activities should be taught and used to illustrate and exemplify the knowledge and understanding required for Outcome 1.

The centre should select web-authoring software it feels would be most appropriate for candidates at this level. While text processing and publishing software could successfully be used to complete this task centres should consider using software designed for this purpose.

Suitable commercially available applications include Dreamweaver, Front Page (or comparable for PC), PageMill (or comparable for Mac), or free/shareware applications such as CoffeeCup, 1st Page 2000 (PC) or Page Spinner (Mac).

It would be desirable, where possible, for candidates to gain experience using chat applications. However, it has been omitted as a practical requirement for Outcome 2 because it will be practically impossible to complete in many centres.

The amount of time spent on each area of content will vary depending on the teaching methodology used and the ability and prior experience of the candidates. However, the following times may act as a rough guide:

World Wide Web	14 hours
e-mail	10 hours
Internet chat	2 hours
web page authoring	10 hours

1½ hours should be set aside to:

- ◆ administer the Outcome 1 test
- ◆ gather evidence for Outcome 2

A further 2½ hours is allowed for remediation and re-assessment if required.

If the Unit is delivered as part of a Cluster, the Cluster documentation will provide further information on teaching and learning in a Cluster context, including the identification of a number of ‘themes’ to facilitate holistic learning across the Cluster.

National Unit Specification: support notes (cont)

UNIT Internet Applications (Access 3)

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

National Assessment Bank tests have been created specifically to assess Outcome 1 of the Unit. This assessment consists of a series of multiple choice tests, and must be conducted under examination conditions. In order to gain success in this Outcome, the candidate must achieve at least the cut-off score for the test. If a centre wished to design its own assessments for this Unit, they should be of a comparable standard.

Outcome 2 requires the candidate to demonstrate practical skills while using contemporary hardware and software. These practical skills will normally be demonstrated in a number of relatively short tasks. However, they may be demonstrated in a single extended task. The tasks will normally be undertaken by the candidate as part of the teaching and learning activities of the Unit, rather than as separate formal assessment activities.

The candidate will be allowed access to books, notes and on-line help while completing the tasks. The practical skills should be demonstrated in the context defined in the content statements.

To gain success in this Outcome, the candidate must demonstrate practical skills in the following contexts:

- World Wide Web
- e-mail
- web page authoring

Hard copy evidence should be provided for all of these activities.

A pro-forma observation checklist for Outcome 2 is provided in the National Assessment Bank materials.

All evidence must be retained by the centre. The assessment of this Unit is subject to moderation by SQA.

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).