

## National Unit Specification: general information

**UNIT** Multimedia Applications (Intermediate 1)

**NUMBER** DF34 10

**COURSE** Computing Studies (Intermediate 1)

### 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 Intermediate 1 Computing Studies Course, but is also suitable for anyone wishing to develop basic competence 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

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ Access 3 Multimedia Applications Unit
- ◆ Access 3 Computing Cluster
- ◆ Intermediate 1 Computing Applications Unit
- ◆ Standard Grade Computing Studies at Foundation level

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### Administrative Information

**Superclass:** CE

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## **National Unit Specification: general information (cont)**

**UNIT**                      Multimedia Applications (Intermediate 1)

### **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.*

### **CORE SKILLS**

There is no automatic certification of Core Skills or Core Skill components in this Unit.

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

### **UNIT        Multimedia Applications (Intermediate 1)**

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

#### **OUTCOME 1**

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

#### **Performance Criteria**

- a) Simple multimedia terminology is used appropriately.
- b) Descriptions and explanations 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 application software accurately and concisely. Evidence should be obtained using questions in a closed book test, under supervision, lasting no more than 45 minutes. The test must sample content (see Computing Studies (Intermediate1) Course content) in each of the following areas:

- ◆ hardware factors
- ◆ features of multimedia software:
  - 1. presentation software
  - 2. desktop publishing software
  - 3. multimedia authoring 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 (Intermediate 1)

#### OUTCOME 2

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

#### Performance Criteria

- a) Multimedia hardware is used correctly to capture text, graphics, sound and video.
- b) Multimedia software is used to produce documents combining text, graphics, sound and video, including page linking.

#### Evidence Requirements

Observation checklist showing that the candidate has demonstrated practical skills in the following contexts:

- ◆ capturing text, graphics and audio
- ◆ downloading data from WWW (Internet)

and **two** of the following types of software

- ◆ presentation software
- ◆ desktop publishing software
- ◆ multimedia authoring software

Hard copy evidence should be provided for **both** of the types of software chosen.

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 limited tutor guidance while completing the task(s).

The practical skills should be demonstrated in the context defined in the content statements (see Computing Studies (Intermediate1) Course content).

(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: support notes

### UNIT Multimedia Applications (Intermediate 1)

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 statements in the left hand column describe the content covered in the corresponding Unit at Access 3 level, and are included here to clarify the context for the new learning for this Unit. They indicate the prior learning required by the candidate before undertaking new learning within this Unit. Content in the right hand column is the new content for this Unit.

<b>Content Statement: Hardware Factors</b>	
<i>Access 3</i>	Intermediate 1
<p><i>Identification of the hardware devices for:</i></p> <p><i>capturing text:</i></p> <ul style="list-style-type: none"> <li>◆ keyboard</li> <li>◆ mouse</li> </ul> <p><i>capturing graphics:</i></p> <ul style="list-style-type: none"> <li>◆ scanner</li> <li>◆ digital camera</li> </ul> <p><i>capturing audio:</i></p> <ul style="list-style-type: none"> <li>◆ microphone</li> </ul>	<p>Description and uses of hardware devices for</p> <p>inputting/capturing text:</p> <ul style="list-style-type: none"> <li>◆ keyboard</li> <li>◆ mouse</li> <li>◆ scanner (including OCR)</li> <li>◆ voice recognition (including microphone)</li> </ul> <p>inputting/capturing graphics:</p> <ul style="list-style-type: none"> <li>◆ scanner</li> <li>◆ graphics tablet</li> <li>◆ digital camera/digital video camera</li> </ul> <p>inputting/capturing audio:</p> <ul style="list-style-type: none"> <li>◆ microphone</li> </ul>
	<p>Description and uses of hardware devices for output</p> <ul style="list-style-type: none"> <li>◆ high resolution monitors</li> <li>◆ speakers</li> <li>◆ data projectors</li> </ul>
<p><i>Identification of hardware required and method of obtaining text/graphics/audio from the World Wide Web</i></p>	<p>Description of hardware required and method of obtaining text/graphics/audio from the World Wide Web (Internet)</p>

## National Unit Specification: support notes (cont)

### UNIT Multimedia Applications (Intermediate 1)

<p><i>Identification of the following backing storage media:</i></p> <ul style="list-style-type: none"> <li>◆ <i>hard disk</i></li> <li>◆ <i>floppy disk</i></li> <li>◆ <i>CD-ROM</i></li> <li>◆ <i>CD-R</i></li> <li>◆ <i>CD-RW</i></li> </ul>	<p>Description and uses of hardware devices for backing storage:</p> <ul style="list-style-type: none"> <li>◆ cost</li> <li>◆ speed of access</li> <li>◆ portability</li> <li>◆ capacity (bits, byte, Kb, Mb, Gb, Tb)</li> </ul> <p>of the following backing storage media:</p> <ul style="list-style-type: none"> <li>◆ hard disk</li> <li>◆ floppy disk</li> <li>◆ CD-ROM</li> <li>◆ CD-R</li> <li>◆ CD-RW</li> <li>◆ USB flash drive</li> <li>◆ DVD devices</li> </ul>
<p><i>Identification of common file types:</i></p> <ul style="list-style-type: none"> <li>◆ <i>text</i></li> <li>◆ <i>graphics</i></li> <li>◆ <i>video</i></li> <li>◆ <i>sound</i></li> </ul>	<p>Identification of common file types:</p> <ul style="list-style-type: none"> <li>◆ text (txt, rtf)</li> <li>◆ graphics (jpeg, bmp, gif)</li> <li>◆ video (mpeg, avi)</li> <li>◆ sound (wav, mp3)</li> </ul>
	<p>Simple description of the need for compression</p>
	<p>Description of need for sound card for capturing and outputting sound Description of need for graphics card for displaying graphics on monitor</p>

## National Unit Specification: support notes (cont)

### UNIT Multimedia Applications (Intermediate 1)

<b>Content Statement: Features of Multimedia Document</b>	
<i>Access 3</i>	Intermediate 1
<p><i>Identification of the following types of multimedia applications.</i></p> <ul style="list-style-type: none"> <li>◆ <i>presentation</i></li> <li>◆ <i>desktop publishing</i></li> </ul>	<p>Description and uses of the following types of multimedia applications:</p> <ul style="list-style-type: none"> <li>◆ presentation</li> <li>◆ desktop publishing</li> <li>◆ multimedia authoring</li> </ul>
<p><i>Identification of the following skills in each of the above applications:</i></p> <ul style="list-style-type: none"> <li>◆ <i>creating a new document</i></li> <li>◆ <i>using a (template)</i></li> <li>◆ <i>inserting text</i></li> <li>◆ <i>inserting graphic/photograph</i></li> <li>◆ <i>page formatting (landscape/portrait / margins/paper size)</i></li> <li>◆ <i>saving</i></li> <li>◆ <i>printing</i></li> </ul>	<p>Description and use of the following skills in each of the above applications:</p> <ul style="list-style-type: none"> <li>◆ creating a new document</li> <li>◆ using a (template)</li> <li>◆ inserting text</li> <li>◆ inserting graphic/photograph</li> <li>◆ page formatting (landscape/portrait/ margins/paper size)</li> <li>◆ saving</li> <li>◆ printing</li> </ul>
<p><i>Identification of the facilities of software:</i></p> <p><i>text</i></p> <ul style="list-style-type: none"> <li>◆ <i>font, size, style (italics, underline, bold), colour, tabs</i></li> <li>◆ <i>justify text (left, right, full, centre)</i></li> <li>◆ <i>use bullet points</i></li> </ul> <p><i>graphic</i></p> <ul style="list-style-type: none"> <li>◆ <i>scale (resize)</i></li> <li>◆ <i>crop</i></li> <li>◆ <i>rotate</i></li> <li>◆ <i>colour</i></li> </ul>	<p>Description of editing facilities of software:</p> <p><i>text</i></p> <ul style="list-style-type: none"> <li>◆ font, size, style (italics, underline, bold), colour, tabs</li> <li>◆ justify text (left, right, full, centre)</li> <li>◆ use bullet points</li> <li>◆ text effects (flashing, dissolving, fade in/out)</li> </ul> <p><i>graphic</i></p> <ul style="list-style-type: none"> <li>◆ scale (resize)</li> <li>◆ crop</li> <li>◆ rotate</li> <li>◆ colour</li> <li>◆ graphic effects (flashing, dissolving, fade in/out)</li> </ul>
	<p>Description and uses of the following features in presentation and multimedia authoring software:</p> <ul style="list-style-type: none"> <li>◆ page linking — including transitions/hyperlinks</li> <li>◆ inserting sound/video</li> </ul>

## National Unit Specification: support notes (cont)

### UNIT Multimedia Applications (Intermediate 1)

#### 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. Where possible, candidates should be given an opportunity to use examples of all three types of software – presentation, desktop publishing and multimedia authoring. However, the skills and concepts for this Unit do not require that candidates have access to industry standard ‘high end’ professional software.

Candidates who have completed the *Multimedia Applications* Unit at Access 3 level should already have covered the content listed in the left hand column of the content grids, but may need to revise this material before progressing to the right hand column.

The amount of time spent on each area of content will vary depending on the teaching methodology used (and also whether practical work in multimedia authoring software is covered) and the ability and prior experience of the candidates. However, the following times are suggested as a rough guide:

hardware factors	6 hours
features of a multimedia software.	5 hours
presentation software	3 hours
desktop publishing software	3 hours
multimedia authoring software	3 hours
practical work using two of presentation, DTP and authoring packages	8 hours each

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 Course, the Course documentation will provide further information on teaching and learning in a Course context, including the identification of a number of ‘themes’ to facilitate holistic learning across the Course.



## National Unit Specification: support notes (cont)

### UNIT Multimedia Applications (Intermediate 1)

#### 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 wishes 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 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, online help and limited tutor guidance while completing the task(s). The practical skills should be demonstrated in the context defined in the content statements (see Computing Studies (Intermediate 1) Course content).

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

- ◆ capturing text, graphics and audio
- ◆ downloading data from WWW (Internet)

and two of the following types of software

- ◆ presentation software
- ◆ desktop publishing software
- ◆ multimedia authoring software

Knowledge and understanding of all three types of software will be assessed for Outcome 1 but for Outcome 2 the candidate is only required to demonstrate practical skills in any two of them.

Hard copy evidence should be provided for both of the types of software chosen. A single page showing evidence of appropriate practical skills is enough for each type of software.

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 Unit. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, September, 2003).