

UAN:	L/502/4613
Level:	2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to the Level 2 National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT).
Endorsement by a sector or regulatory body:	This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.
Aim:	<p>This unit is about the ability to use a software application designed to create, modify and layout images for display in print or on a screen (e.g. vector graphics for design and drawing; raster graphics for photo manipulation or illustration).</p> <p>On completion of this unit a candidate should be able to select and use a range of intermediate imaging software tools and techniques to produce at times non-routine or unfamiliar designs.</p> <p>Imaging software tools and techniques will be defined as 'intermediate' because:</p> <ul style="list-style-type: none"> • the range of entry, manipulation and outputting techniques will be at times non-routine or unfamiliar; • the software tools and functions involved will at times be non-routine or unfamiliar; and • the user will take some responsibility for setting up or developing the type or structure. <p>Examples of context: work flow process maps, drawings or edited photos for a website.</p>

Learning outcome
The learner will: 1. obtain, insert and combine information for images.
Assessment criteria
The learner can: 1.1 describe what images are needed 1.2 obtain, input and prepare images to meet needs 1.3 describe what copyright and other constraints apply to the use of images 1.4 use appropriate techniques to organise and combine information of different types or from different sources 1.5 describe the context in which the images will be used 1.6 describe what file format to use for saving images to suit different presentation methods 1.7 store and retrieve files effectively, in line with local guidelines and conventions where available.

Learning outcome
The learner will: 2. use imaging software tools to create, manipulate and edit images.
Assessment criteria
The learner can: 2.1 identify what technical factors affecting images need to be taken into account and how to do so 2.2 select and use suitable techniques to create images 2.3 use guide lines and dimensioning tools appropriately to enhance precision 2.4 select and use appropriate tools and techniques to manipulate and edit for images 2.5 check images meet needs, using it tools and making corrections as necessary 2.6 identify and respond to quality problems with images to make sure that they meet needs.

Unit 202 Imaging software

Supporting information

Guidance

The following guidance is not a prescriptive list of activities; they are suggested areas that a learner could show competence in to achieve this unit. Centres may use some or all these activities or some of their own devising to teach and help learners complete this unit successfully.

Learning outcome

1. Obtain, insert and combine information for images

The learner should be able to and understand:

Images:

- designs or images will vary according to the task for example:
 - photos from a digital camera, scanned images, graphic elements, drawings, clip art

Prepare images:

- size, crop and position

Copyright constraints:

- effect of copyright law (e.g. on use of other people's images)
- acknowledgment of sources, avoiding plagiarism, permissions

Combine information:

- insert, size, position, wrap, order, group, import data
- links and references to external data

Context for images:

- contexts will vary according to the software and task, for example:
 - on screen display, publishing on a web site, hard copy print out, digital file

File formats for images:

- will vary according to the content, for example:
 - jpg for Internet photo display
 - png for Internet drawing display
 - svg for graphic designs (the ISO standard most likely to be fully supported by web browsers)
 - digital picture format (e.g. jpeg and psd)
 - Bitmap or raster picture formats (e.g. raw bitmaps, bmp and compressed formats jpeg and png)
 - Vector graphics (e.g. svg, wmf, eps, ai)
 - open formats (e.g. html, odf, pdf and rtf)
 - proprietary formats (e.g. pub and qxd)
- method of compression (lossy, non-lossy).

Learning outcome

1. Obtain, insert and combine information for images

The learner should be able to and understand:

Store and retrieve:

- files (e.g. create, name, open, save, save as, print, close, find, share), file size
- version control
- import data, export data
- folders (e.g. create, name).

Learning outcome

2. Use imaging software tools to create, manipulate and edit images

The learner should be able to and understand:

Technical factors affecting images:

- page or canvas size
- colour mode
- file size and format
- difference between screen and print resolution

Create images:

- draw basic shapes and adjust properties (e.g. line width, fill colour, transparency)
- download digital photos from a camera
- scan and resize images
- add text and other elements such as lines, boxes and arrows
- create more complicated designs using painting, drawing or image manipulation software

Manipulate and editing techniques:

- align, rotate, flip, arrange, cut, paste, resize
- change font, text and colour
- group, ungroup
- change templates
- filters to create special effects
- orders and layers

Check images:

- size, alignment and orientation
- suitability of file format
- appropriate choice of colour mode and use of filters, fitness for purpose of image resolution

Quality problems with images:

- will vary according to the content, for example:
 - levels, contrast, resolution.