### e-Quals Unit Syllabus

# Level 2 Creating combined presentation design using ICT

7266 - 034



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Syllabus Overview

#### **Rationale**

The aim of this unit is to provide candidates with an intermediate level of skills and knowledge to competently prepare for, and perform a variety of *paper and web based design related tasks* using Information and Communication Technologies (ICT). Candidates will develop a more demanding understanding of design and web site applications and the operating system in everyday usage and the ability to work in a generally unsupervised role solving issues competently without direction.

### **Learning outcomes**

There are **five** outcomes to this unit. The candidate will be able to:

- Acquire digital still images from different sources
- Produce digital artwork and drawings using a desk top publishing (DTP) application
- Produce designs for publications
- Prepare publications using a DTP application
- Prepare publications using a web publishing application

### **Guided learning hours**

It is recommended that 60 hours should be allocated for this unit. This may be on a full time or part time basis.

### **Connections with other qualifications**

This unit contributes towards the knowledge and understanding required for the following qualifications:

### IT User NVQ (ITQ) Level 2

Outcome	Unit	
1, 2, 3	201	Make selective use of IT 2
1, 2, 3, 4, 5	202	Operate a computer 2
1, 2, 3	203	IT Troubleshooting for users 2
1, 2, 3	205	IT security for users 2
1, 2, 3, 4, 5	206	Internets and Intranets 2
1, 2, 3, 4, 5	211	Website software 2
1, 2, 3, 4	212	Artwork and imaging software 2
1, 2, 3	213	Presentation software 2
1, 2	214	Specialist or Bespoke software 2
1, 2, 3, 4, 5	215	Evaluate the impact of IT 2
1, 2, 3, 4, 5	217	Use IT systems 2
2, 3	218	Use IT to exchange information 2

### Assessment and grading

Assessment will be by means of a **set assignment** covering both practical activities and underpinning knowledge.

Outcome 1 Acquire digital still images from different sources

#### **Practical activities**

The candidate will be able to:

- use a simple digital camera to produce digital images of a range of subjects with a range of light levels (eg sun, cloud, indoor, flash etc)
  - a portrait
  - b group
  - c landscape (including panoramic views using multiple adjacent images)
  - d street scene
- 2 download digital photographs from a camera storage medium to a pc
- 3 use a flatbed scanner and software
  - a to acquire digital images of
    - i monochrome photographs/graphics
    - ii monochrome documents using optical character recognition (OCR)
    - iii grey scale photograph/graphics
    - iv colour photographs/graphics
    - v colour documents
  - b using basic software settings eg
    - i image type
    - ii destination
    - iii resolution
    - iv scale
- 4 acquire digital images in various file formats from Internet or other network sources
- 5 organise and re-name digital image files in themed groups.

### **Underpinning knowledge**

- 1 list the features of common digital imaging systems eg
  - a multiple file types
  - b file compression
  - c image acquisition from different sources
  - d peripherals eg printers, scanners etc.
  - e image enhancement and manipulation
  - f can produce hard copy in a variety of formats
  - g facilitates sharing of images between applications and locations

### Underpinning knowledge continued

- 2 identify sources of digital images eg
  - a digital camera
  - b scanner
- 3 describe the limitations of digital imaging when using:
  - a digital camera
  - b scanner
  - c existing images from outside sources
- 4 explain the terms:
  - a compression
  - b capture
  - c post-processing
  - d resolution
  - e 'lossy' format
- 5 describe scanning modes:
  - a line
  - b tone
  - c rgb
  - d cmyk
  - e greyscale
- 6 Outline the technical dangers of acquiring images from un-proved sources eg
  - a embedded viruses
  - b spyware/adware
- Outline the legal implications of downloading images from the Internet and other public access sources including:
  - a copyright issues
  - b data protection
  - c criminal offences (obscenity etc.)
  - d workplace restrictions.

Outcome 2 Produce digital artwork and drawings using a desk top publishing (DTP) application

#### **Practical activities**

The candidate will be able to:

- 1 produce outline designs for artwork that includes:
  - a line drawing, using auto and freehand shapes
  - b colour painting and imported images
- 2 select and open a DTP application that includes suitable drawing facilities to produce digital versions of artwork designs
- produce digital artwork based on outline designs, using single and multiple images, and including appropriate text, and using tools such as:
  - a group/ungroup
  - b grid
  - c snap to grid
  - d size
  - e crop
  - f rotate/flip
- 4 save digital artwork using suitable file formats and convenient file sizes to the specified local or remote location.

### **Underpinning knowledge**

- 1 identify the common functions and tools in software with drawing facilities eg
  - a auto shapes
  - b freehand drawing
  - c line types and thicknesses
  - d airbrush
  - e paintbrush
  - f eraser
  - g colour selection (standard and custom)
  - h sizing
  - i crop
  - j aspect ratio lock
  - k zoom
  - I layout grid
  - m snap

### Underpinning knowledge continued

- 2 identify suitable
  - a file types for their artwork in websites eg
    - i Bitmap .bmp
    - ii .gif
    - ii .jpg
  - b file types suitable for print publishing that are application specific and more common
    - i .psd
    - ii .pdf
    - iii .eps
    - iv .rtf
    - v .html
- 3 outline the advantages and disadvantages of using a graphic tablet to input data
- 4 outline the advantages and disadvantages of methods of digital image storage eg
  - a optical media
  - b hard drive
  - c removable/portable media
- 5 define the term 'image manipulation'
  - a Outline the basic features and tools found in image enhancing software eg
  - b sizing eg image and canvas
  - c rotate/ flip
  - d adjust eg brightness, contrast, auto, sharpen
  - e layer
  - f crop/trim
  - g zoom
  - h filter
- 6 identify the commonly used colour modes eg
  - a greyscale
  - b rgb
  - c cmyk
  - d Duotone
  - e halftone
  - f monotone
  - g sepia
- 7 describe some of the basic problems associated with image editing eg
  - a enlarging low-definition images
  - b wide angle distortion
  - c image not straight eg tilted horizon etc.
  - d over-use of sharpen tool
  - e auto-correct not giving desired effect
  - f cropping can destroy image composition.

### Outcome 3 Produce designs for publications

### **Practical activities**

The candidate will be able to:

- 1 produce a brief publication specification detailing:
  - a textual content
  - b graphical content
  - c order of presentation
- 2 produce layouts for a hard copy publication to be produced using DTP including specifications for graphics files to be used
- produce layouts for a publication to be published as a series of web pages, including specifications for graphics files to be used.

### **Underpinning knowledge**

- 1 describe different file formats for text or graphics and text:
  - a .rtf
  - b text files .txt
  - c word processor files
  - d .pdf
  - e DTP formats
- 2 Identify the differences in requirements for hard copy and web-based publications and resolve issues surrounding them.

### Outcome 4 Prepare publications using a DTP application

#### **Practical activities**

- select and open a suitable DTP application with sufficient features to produce a publication containing text and graphics
- 2 input text and graphics according to specific layouts and designs
- 3 use guides or page layout grids to position and align text
- 4 use different text layouts eg
  - a line and character spacing
  - b bullet and numbered lists
  - c indents eg first line, hanging, whole paragraph
  - d side headings
  - e rotated/skewed text
  - f banner headlines
  - g callout boxes
  - h justification eg left, right, centre, full
- 5 use different text enhancements and formats eg
  - a font
  - b font size
  - c bold, italics, roman
  - d dropped and raised capitals
  - e reverse text
  - f tinted backgrounds
  - g leading
  - h kerning
  - i hyphenation
  - underline
  - k strikethrough
  - I subscript, superscript
- 6 use interline and character spacing, eg leading, pair, kerning and hyphenation to fit copy to a given space
- 7 create and use different text styles
- 8 use guides or page layout grids to position and align graphic elements on pages containing text
- 9 anchor a graphic image to a specified position

#### **Practical activities continued**

- 10 change the attributes/properties of a graphic eg
  - a object
  - b size
  - c position
  - d shape
  - e border
  - f background
- add a frame to a graphic image
- 12 add a caption to a graphic image
- wrap text around a graphic image
- 14 combine text and a graphic image to produce text over the image
- edit a graphic image to modify the colour, fill colour and style
- save the publication to a specified location
- print the publication on specified paper in a specified format.

### **Underpinning knowledge**

- identify basic principles and means of ensuring effective communication using printed images:
  - a typefaces and typesetting
  - b type: layout, structure, emphasis
  - c illustration
  - d page layout grids
  - e guides
- describe the purposes of using different text layout designs when creating a publication:
  - a text density
  - b white space
  - c special text effects
  - d wrap
  - e rotated and skewed text
- describe the purposes of selecting different typographical designs when creating a publication:
  - a serif
  - b sans serif
  - c roman
  - d italic
  - e upper case, lower case
  - f tinted backgrounds
  - g dropped and raised capitals
  - h describe the reasons for creating text styles
- 5 distinguish between fonts eg printer, screen, bitmap and scaleable.

Outcome 5 Prepare publications using a web publishing application

#### **Practical activities**

- select and open suitable a web publishing application
- 2 produce web versions of text and graphics publications
- 3 embed images within web pages
  - a set suitable alignment attributes
  - b use the alt tag to provide the user with alternative meaningful information
- 4 use tables to enhance the layout of
  - a text and graphics
  - b tabular information
- 5 use anchors to establish hyperlinks within a single web page
- 6 use hyperlinks to link to:
  - a pages within the same web site
  - b other sites on the world wide web
- 7 create image maps and hotspots to link to:
  - a pages within the same web site
  - b other sites on the world wide web
- 8 use meta tags to add keyword information to pages to aid search engines
- 9 resize images within web sites:
  - a as primary images
  - b for use as background images on pages
  - c for use as a icons or thumbnails
  - d to specific dimensions
- 10 apply transparency to images
- apply 'web safe' palettes of colours to images
- use file compression to achieve optimal quality of images within constraints eg file size, download times
- test web pages to ensure:
  - a hyperlinks work correctly
  - b navigation between pages is easy
  - c pages can be viewed on a variety of browsers
  - d text and images can be viewed easily.

### **Underpinning knowledge**

- 1 explain the factors that affect the file size of an image:
  - a number of colours
  - b file compression
  - c physical pixel dimensions
  - d file type
- 2 describe the advantage of 'transparency' when applied to an image
- 3 explain the purpose of using a 'web safe' palette of colours
- 4 Identify ways in which the look and function of web pages might be improved eg
  - a reduce the size of image files to give quicker loading
  - b alter background and font colours to improve contrast
  - c introduce additional hyperlinks to aid navigation
  - d alter layout to reduce clutter.

### **Unit record sheet**

Use this form to track your progress through this unit.

Tick the boxes when you have covered each outcome. When they are all ticked, you are ready to be assessed.

Outcome			Date	
1	Acquire digital still images from different sources			
2	Produce digital artwork and drawings using a desk top publishing (DTP) application			
3	Produce designs for publications			
4	Prepare publications using a DTP application			
5	Prepare publications using a web publishing application			
Candidate Signature		Date		
As	sessor Signature	Date		
Ce	ntre Name Centr	e Number		

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