City & Guilds 7574 Level 1-3 Award, Certificate and Diploma for IT Users

January 2024

Unit Pack with teaching content guidance

www.cityandguilds.com
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Version 9.2

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Qualification title	Number	Ofqual ref.
City & Guilds Level 1 Award for IT Users (ITQ)	7574-01	500/6805/2
City & Guilds Level 2 Award for IT Users (ITQ)	7574-02	500/6706/0
City & Guilds Level 3 Award for IT Users (ITQ)	7574-03	500/6697/3
City & Guilds Level 1 Certificate for IT Users (ITQ)	7574-01	500/6759/X
City & Guilds Level 2 Certificate for IT Users (ITQ)	7574-02	500/6724/2
City & Guilds Level 3 Certificate for IT Users (ITQ)	7574-03	500/6587/7
City & Guilds Level 1 Diploma for IT Users (ITQ)	7574-01	500/6903/2
City & Guilds Level 2 Diploma for IT Users (ITQ)	7574-02	500/6760/6
City & Guilds Level 3 Diploma for IT Users (ITQ)	7574-03	500/6688/2
City & Guilds Level 2 Diploma in IT User Skills – Apprenticeship	7574-02	600/0993/7
City & Guilds Level 3 Diploma in IT User Skills - Apprenticeship	7574-03	600/0994/9

Version and date	Change detail	Section
7.4 September 2012	Corrected unit numbers	Units
8.0 January 2015	Formatted document and added units (137-139, 237-239, 337-339, 241 and 340 and formatting	Units
9.0 March 2015	Amended Unit 340 – Learning outcome 3 Heading	Units
9.1 July 2016	Amended the assessment methods for units 237, 238 and 338	Units
9.2 January 2024	Copyright notice updated City & Guilds added to qualification title References to QCF removed	About City & Guilds Throughout Throughout

	Links and contacts updated	***Throughout***

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1 Introduction to the qualifications

This document contains the information that centres need to offer the following qualifications:

Qualification title and level	*City & Guilds qualification number*	*Qualification accreditation number*
City & Guilds Level 1 Award for IT Users – ITQ	*7574-01*	*500/6805/2*
City & Guilds Level 1 Certificate for IT Users – ITQ	*7574-01*	*500/6759/X*
City & Guilds Level 1 Diploma for IT Users – ITQ	*7574-01*	*500/6759/X*
City & Guilds Level 2 Award for IT Users – ITQ	*7574-02*	*500/6706/0*
City & Guilds Level 2 Certificate for IT Users – ITQ	*7574-02*	*500/6724/2*
City & Guilds Level 2 Diploma for IT Users – ITQ	*7574-02*	*500/6760/6*
City & Guilds Level 3 Award for IT Users – ITQ	*7574-03*	*500/6697/3*
City & Guilds Level 3 Certificate for IT Users – ITQ	*7574-03*	*500/6587/7*
City & Guilds Level 3 Diploma for IT Users – ITQ	*7574-03*	*500/6688/2*
City & Guilds Level 2 Diploma in IT User Skills – Apprenticeship	*7574-02*	*600/0993/7*
City & Guilds Level 3 Diploma in IT User Skills - Apprenticeship	*7574-03*	*600/0994/9*

Registration and certification

Consult the Walled Garden/Online Catalogue for last dates

Who the qualification is for?
The qualification is for individuals or organisations looking to improve their use of Information & Communication technology. It provides clear progress from those with little experience of ICT who may be directed in its use to those who can diagnose issues and use ICT to solve them.

What the qualification covers?

The qualification provides learning across a wide range of subjects that include a variety of software applications, setup and optimising computer systems and general use ICT through 3 specific units in software, communication and user fundamentals that also map to Functional Skills ICT.

What learners will be able to do on gaining the qualification?
Learners may progress through the levels of the ITQ to gain more in depth knowledge in particular subjects, though some learners' experience may enable them to start at a high level. The qualification will show their competency in specific areas and that the have the underpinning knowledge that will allow them to apply that competency rather than use a particular type of software or device.

Learners will be able to feel confident in their use of ICT in a variety of roles whether in administration to catering, design to management, NHS to warehousing. ITQ is not about a specific job role or industry, it is an essential part of over 70% of employees' daily working life.

The level of the qualification?
The qualification is offered at Level 1, 2 and 3, with 3 sizes at each level being an Award, Certificate
or Diploma depending on the number of credits obtained through the units undertaken.

Related products
The following are City & Guilds products that have a direct relationship to ITQ (7574) and the type of relationship to this qualification.

Qualification	*Relationship to ITQ (7574)*
Start IT (ITQ) - (4249)	*Entry Level 3 provides basic skills and knowledge to allow for progression onto Level 1 ITQ (7574)*
NVQ in IT (ITQ) - (4322)	*NVQ based on IT User standards 2003/4, evidence or certification of units can be used as APL/contributing qualifications for the equivalent units in ITQ (7574)*
ITQ – (7541)	*ITQ based on IT User standards 2003/4, evidence or certification of units can be used as APL/contributing qualifications for the equivalent units in ITQ (7574)*
e-Quals – (7266)	*VRQ with assignments, certification or assignments completed and marked using City & Guilds marking criteria can be used as evidence for ITQ (7574) with no additional work needing to be undertaken*

Additional information
The qualification has been designed to be part of the following educational frameworks;

- ***Level 1 is part of the Foundation Learning Tier***
- ***Level 2 and Level 3 will be part of an IT User Apprenticeship at these levels***
- ***All levels will be included as Additional and Specialist Learning for Diplomas***

Approved Prior Learning and contributing qualifications from other Awarding Bodies
City & Guilds will accept certificates that are not more than 3 years old from following products as evidence toward ITQ 7574;

- ***CLaIT***
- ***ECDL***
- ***All Awarding Bodies ITQ***

Where a certificate is not available, if a learner provides a portfolio of evidence we would recommend the centre use this toward the ITQ (7574) and undertake a Professional Discussion to confirm competence and knowledge – especially where this evidence may be more than 3 years old.

Units available

Unit no. (x-1, 2, 3)	*Unit title*	*Level 1 credit value*	*Level 2 credit value*	*Level 3 credit value*
X01	*Improving productivity using IT*	*3*	*4*	*5*
X02	*IT user fundamentals*	*3*	*3*	*-*
X03	*Set up an IT system*	*3*	*4*	*5*
X04	*Optimise IT system performance*	*2*	*4*	*5*
X05	*IT security for users*	*3*	*2*	*3*
X06	*IT communication fundamentals*	*3*	*2*	*-*
X07	*Using the internet*	*3*	*4*	*5*
X08	*Using e-mail*	*2*	*3*	*3*
X09	*Using collaborative technologies*	*3*	*4*	*6*
X10	*Using mobile IT devices*	*2*	*2*	*-*
X11	*Personal information management software*	*2*	*2*	*-*
X12	*IT software fundamentals*	*3*	*3*	*-*
X13	*Audio software*	*2*	*3*	*4*
X14	*Video software*	*2*	*3*	*4*
X15	*Bespoke software*	*2*	*3*	*4*
X16	*Specialist software*	*2*	*3*	*4*
X17	*Computerised accounting software*	*2*	*3*	*5*
X18	*Data management software*	*2*	*3*	*4*
X19	*Database software*	*3*	*4*	*6*
X20	*Design software*	*3*	*4*	*5*
X21	*Imaging software*	*3*	*4*	*5*
X22	*Desktop publishing software*	*3*	*3*	*5*
X23	*Drawing and planning software*	*2*	*4*	*4*
X24	*Multimedia software*	*3*	*4*	*6*
X25	*Presentation software*	*3*	*4*	*6*
X26	*Project management software*	*3*	*4*	*5*
X27	*Spreadsheet software*	*3*	*4*	*6*
X28	*Website software*	*3*	*4*	*5*
X29	*Word processing software*	*3*	*4*	*6*
2/334	*Understand the potential of IT*	*n/a*	*8*	*8*
2/335	*Developing Personal and team effectiveness using IT*	*n/a*	*4*	*4*
134	*Using a computer keyboard*	*1*		
135	*Internet safety for IT users*	*3*		

Sector specific unit (see qualification handbooks)

Rules of combination

		Level 1	*Level 2*	*Level 3*
Award	*Credit value (min*	*9*	*10*	*12*
	Mandatory unit	*n/a*	*n/a*	*n/a*
	Optional units Two thirds of credits at qualification level	*Minimum of 6 credits at the level of the qualification*	*Minimum of 7 credits at the level of the qualification*	*Minimum of 8 credits at the level of the qualification*
Certificate	*Credit value (min)*	*13*	*16*	*25*
	Mandatory unit	*L1 IPT (3 credits)*	*L2 IPT (4 credits)*	*L3 IPT (5 credits)*
	Optional units At least half of credits at qualification level	*10 credits or more Minimum of 5 credits at L1 or above*	*12 credits or more Minimum of 6 credits at L2 or above*	*20 credits or more Minimum of 10 credits at L3 or above*
Diploma	*Credit value (min*	*37*	*38*	*39*
	Mandatory unit	*L1 IPT (3 credits)*	*L2 IPT (4 credits)*	*L3 IPT (5 credits)*
	Optional units At least half of credits at qualification level	*34 credits or more Minimum of 17 credits at L1 or above*	*34 credits or more Minimum of 17 credits at L2 or above*	*34 credits or more Minimum of 17 credits at L3 or above*
Diploma – IT User Skills - Apprenticeships	*Credit value (min*	*-*	*38*	*39*
	Mandatory unit	*-*	*L2 IPT (4 credits) L2 UPT (8 credits) L2 DPT (4 credits)*	*L3 IPT (5 credits) L3 UPT (8 credits) L3 DPT (4 credits*
	Optional units	*-*	*22 credits or more Minimum of 5 credits at L2*	*22 credits or more Minimum of 5 credits at L3*

Use of sector specific and Entry Level 3 units

		Level 1	*Level 2*	*Level 3*
Using the sector specific unit	*Award*	*None*	*None*	*None*
	Certificate	*Maximum of 3 credits SSU at any relevant level*	*Maximum of 4 credits SSU at any relevant level*	*Maximum of 5 credits SSU at any relevant level*
	Diploma	*Maximum of 3 credits SSU at any relevant level*	*Maximum of 4 credits SSU at any relevant level*	*Maximum of 5 credits SSU at any relevant level*
Using Entry Level 3 units	*Award*	*Up to 3 credits at E3*	*No credits at E3*	*No credits at E3*
	Certificate	*Up to 3 credits at E3*	*No credits at E3*	*No credits at E3*
	Diploma	*Up to 5 credits at E3*	*No credits at E3*	*No credits at E3*

Barred combinations

Barred combinations denotes that if candidates choose units that are part of the barred combination list then only one will be counted toward the credit for the qualification.

ICT Functional Skills excludes at all levels the use of:

- ***IT user fundamentals***
- ***IT communication fundamentals***
- ***IT software fundamentals***

Where a candidate undertakes the same unit at different levels only the credit from the highest level will be used toward the total credit for the qualification.

Exempt combinations

Exempt combinations denote units that will decrease the total credit required by the candidate to complete the qualification. Only one of these units may be included and can not be used if the candidate wishes to count the credit from Functional Skills ICT.

		Credit
Exempt combinations	*Skills for Life ICT (Entry Level 3)*	*3*
	Key Skills ICT (Levels 1 to 4)	*5*
	Essential Skills ICT (Levels 1 and 2)	*5*
	Core Skills (Scotland)	*5*

Sector specific units

Where a unit from another qualification is to be used toward this qualification, regardless of the credit value it has within in its own sector it will only get a maximum of:

- ***3 credits at Level 1***
- ***4 credits at Level 2***
- ***5 credits at Level 3***

Where the credit value is less than that shown then this will be used toward the total credit for this qualification.

Certificates of unit credit

Certificates of Unit Credit (CUC) will be issued to candidates for each successfully completed unit, even if the full qualification is not attempted.

Candidates that do complete a full qualification will receive, in addition to their full certificate, a CUC showing each unit completed and its credit value.

2 Assessment of the qualification

Evidence requirements

City & Guilds ITQ has been designed to allow centres to employ the most appropriate method of assessment for their environment and the learners. There is no longer the concept of 'must be generated in the work place' or 'real work evidence', 7574 ITQ can be used as a qualification behind both the work place learning/assessment and classroom courses as required.

Valid evidence can take the following from;

- ***e-Quals (7266) assignments marked using the City & Guilds marking guides***
  - ***these may be undertaken in a supervised area in the work place and are not restricted to being used within the centre***
- ***activities undertaken at work***
- ***social or voluntary activities***
  - ***club membership or PTA budgeting***
  - ***posters for events***
  - ***personal websites or use of on-line shopping/banking***
  - ***governor or club reports/minutes from meetings***
  - ***newsletters***
  - ***club/school websites***
- ***enterprise activities***
  - ***business plans***
  - ***cash flow and budgeting***
  - ***marketing materials***
- ***learning and studying subjects other than IT***
- ***exercises or scenarios or tasks designed for the purpose of assessment***
- ***projects or non-taught classroom activities***
- ***professional discussion (this can be a recorded conversation or interview with the candidate)***
- ***expert witness (this can be a recorded conversation or interview with the expert witness)***

Detailed guidance on specific types of evidence and performance assessment methods are provided on a unit basis for all units of these qualifications. The requirements are examples and suggestions, not a prescriptive list.

Where a centre wishes to design a marked assignment that is tailored to a particular group of candidates, this should be submitted for approval to the qualification Product Manager, Assessment Manager or Qualification Group Advisor before it is used. Once the assignment has been approved, City & Guilds reserve the right to use this as part of their public assessment and make it available alongside other assignments through its website.

Expert witness requirements

The expert witness does not need to hold a supervisory or managerial position to provide testimony to the competence of the candidate. They will be expected to have

been involved in the teaching/training of the candidate or be the local specialist in the subject being assessed.

Tutors/assessors may also act as expert witnesses to assess candidates' capabilities, though they are not expected to know specialist or bespoke software in detail but be able to hold a professional discussion with them to elicit the appropriate evidence.

Mandatory units

There is no longer a need for the candidate to;

- *produce evidence from the work place*
- *provide evidence from activities for a real purpose.*

Scenarios, assignments and other assessment methods as outlined are acceptable.

Optional units

Candidates are not required to;

- *perform a given number of tasks*
- *produce evidence of competence for any given Assessment Criteria more than once*
- *provide evidence for every knowledge Assessment Criteria if this is implied in tasks/scenarios/projects they are asked to undertake*
- *produce extra evidence other than a marked assignment if assessed using an e-Quals assignment*

Candidates are required to;

- *demonstrate competence against practical Assessment Criteria, though evidence may be in the form of expert witness statement or professional discussion*
- *produce evidence of competence for any given Assessment Criteria at least once*

Units are complete when the candidate has demonstrated satisfactory competence and knowledge of a unit to their tutor/assessor.

Approved prior learning

Candidates may use certification from contributing qualifications to gain a unit of City & Guilds ITQ (7574) or provide a portfolio of evidence to be assessed by the centre. Certificates should be no older than 3 years and this includes those awarded by City & Guilds for units undertaken through e- Quals.

Contributing qualifications

- *ECDL*
- *CLaIT*
- *ITQ from any Awarding Body*

For further advice, centres should discuss what the candidate wishes to use with their External
Verfier.

Porfolios

Centres and candidates may organise portfolios in the way that most suits them, cross referencing where evidence covers more than one Assessment Criteria either within the unit or across units.

3 Units

Availability of units

The units, along with their learning outcomes and assessment criteria for this qualification follow. The learning outcomes and assessment criteria are also viewable on the National Database of Accredited Qualifications (NDAQ) www.accreditedqualifications.org.uk

Structure of units

The units in these qualifications are written in a standard format and comprise the following:

- ***City & Guilds reference number and title***
- ***Level and credit value***
- ***unit aim***
- ***endorsement by a sector or other appropriate body***
- ***learning outcomes which are comprised of a number of assessment criteria***
- ***notes for guidance – which are suggestions and should not be seen as a prescriptive list.***

Definition of Levels

Level 1

A Level 1 user can make use of predefined or commonly used IT tools for activities that are straightforward or routine, identifying and using automated methods or alternative ways of working to improve productivity. Any aspect that is unfamiliar will require support and advice from other people.

An activity will typically be 'straightforward or routine' because:

- ***the task or context will be familiar and involve few factors (for example, time available, audience needs, message, structure); and***
- ***the techniques used will be familiar or commonly undertaken.***

Level 2

A Level 2 user can make use of predefined or commonly used IT tools for activities that are at times non-routine or unfamiliar, they will be able to devise solutions to use IT tools to improve productivity. Any aspect that is unfamiliar will require support and advice from other people.

An activity will typically be 'non-routine or unfamiliar' because:

- ***the task or context is likely to require some preparation, clarification or research (to separate***
- ***the components and to identify what factors need to be considered, for example, time available, audience needs, accessibility of source, types of content, message and meaning) before an approach can be planned; and***
- ***the techniques required will involve a number of steps and at times be non-routine or unfamiliar.***

Level 3

A Level 3 user can make use of predefined or commonly used IT tools for activities most of which are complex and non-routine, they will be able to devise solutions in the use of IT tools in order to improve productivity. They will take considerable responsibility and autonomy, and be prepared to offer support and advice to others.

An activity will typically be 'complex and non-routine' because:

- ***the task or context is likely to require research, analysis and interpretation;***
- ***the work may be undertaken by others; and the techniques required will be complex, and***
- ***the selection process may involve analysis, research, identification and application.***

Unit 101 Improving productivity using IT

Level: ***1***
Credit value: ***3***

Unit aim
This is the ability to plan, evaluate and improve procedures involving the use of IT tools and systems to improve the productivity and efficiency of tasks and activities.

On completion of this unit the candidate should be able to plan and review their use of predefined or commonly used IT tools for activities that are straightforward or routine. As a result of reviewing their work, they will be able to identify and use automated methods or alternative ways of working to improve productivity.
Examples of context: Using keyboard shortcuts for common tasks

Learning outcomes
There are three learning outcomes to this unit.
The learner will:

1. ***Plan the use of appropriate IT systems and software to meet requirements***
2. ***Use IT systems and software efficiently to complete planned tasks***
3. ***Review the selection and use of IT tools to make sure that work activities are successful***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.
Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 101 Improving productivity using IT
Learning outcomes and assessment criteria

Outcome 1 Plan the use of appropriate IT systems and software to meet requirements

The learner can:

1. ***Identify the purpose for using IT***
2. ***Identify the methods, skills and resources required to complete the task successfully***
3. ***Plan how to carry out the task using IT to achieve the required purpose and outcome***
4. ***Identify reasons for choosing particular IT systems and software applications for the task***
5. ***Select IT systems and software applications as appropriate for the purpose***
6. ***Identify any legal or local guidelines or constraints that may affect the task or activity***

Outcome 2 Use IT systems and software efficiently to complete planned tasks

The learner can:

1. ***Identify automated routines to improve productivity***
2. ***Use automated routines that aid efficient processing or presentation***
3. ***Complete planned tasks using IT***

Outcome 3 Review the selection and use of IT tools to make sure that work activities are successful

The learner can:

1. ***Review outcomes to make sure they meet the requirements of the task and are fit for purpose***
2. ***Decide whether the IT tools selected were appropriate for the task and purpose***
3. ***Identify the strengths and weaknesses of the completed task***
4. ***Identify ways to make further improvements to work***

Teaching 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.

Outcome 1 Plan the use of appropriate IT systems and software to meet requirements

The learner should understand:

Purpose for using IT:

- ***Who and what the information is for***
- ***When it must be finished and what information needs to be included***
- ***Where it will be used (on screen, sent to others, printed)***

Reasons for choosing IT:

- ***Time, convenience, cost; benefits of IT or manual methods of preparing, processing and presenting the same information***
- ***Own views on convenience and effectiveness at meeting needs, quality, accuracy***
- ***How IT can make tasks easier than other methods, streamline business processes, increase productivity***

Legal or local guidelines or constraints which may include:

- ***Data protection, copyright, software licensing***
- ***Security***
- ***Organisational house-style or brand guidelines***
- ***Local guidelines for working with IT and storage of information***

Outcome 2 Use IT systems and software efficiently to complete planned tasks

The learner should be able to use and understand:

- ***Automated routines:***
- ***Short cuts***
- ***Customised menus and tool bars***
- ***Run pre-set macros***
- ***Templates***

Outcome 3 Review the selection and use of IT tools to make sure that work activities are successful

The learner should be able to and understand:

Review outcomes:

- ***Quality of information used***
- ***Produce drafts***
- ***Review against initial plans***
- ***Check with intended audience***

Strengths and weaknesses:

- ***Format, layout***
- ***Accuracy***
- ***Clarity for audience***

Improvements to work:

- ***Correct mistakes***
- ***Avoid affecting other people's work***
- ***Better ways of doing things, learning new techniques***

Unit 102 IT user fundamentals

Level: *1*
Credit value: *3*

Unit aims

This unit is about the ability to use IT systems sensibly and purposefully to meet needs, to do so safely and securely in line with organisational guidelines, to respond appropriately to IT problems and to evaluate the use of IT systems.

On completion of this unit the candidate should be able to use suitable techniques to operate IT systems for activities most of which are routine and straightforward, to respond appropriately to common IT errors and problems and review own use of IT.

Examples of context: Using a personal computer or laptop; organising and backing up own data files

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Use IT systems to meet needs [UIS1:1 < not 1.3 – see ISF]***
2. ***Organise, store and retrieve information [UIS1:3]***
3. ***Follow and understand the need for safety and security practices [UIS1:4] (SM4)***
4. ***Carry out routine maintenance of IT systems and respond to routine IT system problems (EP3)***

Guided learning hours

It is recommended that at least 20 guided learning hours should be allocated for this unit. This may be on a full-time or part-time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 102 IT user fundamentals
Learning outcomes and assessment criteria

Outcome 1 Use IT systems to meet needs [UIS1:1 < not 1.3 – see ISF]

The learner can:

1. ***Use correct procedures to start and shutdown an IT system [UIS1:1.1]***
2. ***Use interface features effectively to interact with IT systems [UIS1:1.4]***
3. ***Adjust system settings as appropriate to individual needs [UIS1:1.5]***
4. ***Use a communication service to access the Internet [UIS1:1.2]***
5. ***Use appropriate terminology when describing IT systems***

Outcome 2 Organise, store and retrieve information [UIS1:3]

The learner can:

1. ***Work with files and folders so that it is easy to find and retrieve information [UIS1:3.1]***
2. ***Identify what storage media to use***
3. ***Organise and store information, using general and local conventions where appropriate [UIS1:3.2]***

Outcome 3 Follow and understand the need for safety and security practices [UIS1:4] (SM4)

The learner can:

1. ***Work safely and take steps to minimise physical stress [UIS1:4.1]***
2. ***Recognise the danger of computer viruses, and identify ways to minimise risk [UIS1:4.3]***
3. ***Keep information secure [UIS1:4.2]***
4. ***Outline why it is important to stay safe and to respect others when using ICT-based communication [UIS1:4.4]***
5. ***Follow relevant guidelines and procedures for the safe and secure use of IT***

Outcome 4 Carry out routine maintenance of IT systems and respond to routine IT system problems (EP3)

The learner can:

1. ***Identify why routine maintenance of hardware is important and when to carry it out***
2. ***Identify where to get expert advice***
3. ***Carry out regular routine maintenance of IT systems safely***
4. ***Take appropriate action to handle routine IT problems***

Teaching 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.

Outcome 1 Use IT systems to meet needs [UIS1:1 < not 1.3 – see ISF]

The learner should be able to and understand:

Start and shutdown procedures:

- ***Log in, enter password, log out***
- ***Shut down menu***
- ***Lock, unlock***

IT system (will vary according to the set up, for example):

- ***Computer (PC, laptop)***
- ***Input device (eg keyboard, mouse or other pointing device)***
- ***Processor***
- ***Output device (eg screen, printer)***
- ***Storage media (eg memory, disk, CD, DVD, data/memory stick, hard drive, network drive)***

Interface features:

- ***Desktop***
- ***Window***
- ***Dialog box***
- ***Menu, submenu, toolbar, icon, scrollbar, buttons***
- ***Drag and drop***
- ***Zoom***
- ***Minimise, maximise***

System settings:

- ***Window size, Icon size***
- ***Mouse settings***
- ***Screen resolution, desktop contrast***
- ***Sound volume***

Communication service:

- ***Broadband, dial up, wireless, network connections***
- ***Mobile device***

Outcome 2 Organise, store and retrieve information [UIS1:3]

The learner should be able to and understand:

File handling:

- ***Files:***
  - ***Create, name, open, save, save as, print and close files; move, copy, rename, delete files; display file lists, sort, search***
- ***Folders:***
  - ***Create and name folders and subfolders***

Storage media:

- ***Disk, CD, DVD, data/memory stick, media card, hard drives, network drive, mobile device***

Organise and store:

- ***Insert, remove, name, label, archive***

Outcome 3 Follow and understand the need for safety and security practices [UIS1:4] (SM4)

The learner should be able to and understand:

Work safely:

- ***Health and safety issues;***
  - ***Risks from hardware, handling equipment, electrical connection risks and guidelines***
  - ***Use and disposal of cleaning materials***
  - ***Risks to self and others from using hardware;***
  - ***Organisational guidelines and points of contact***

Physical stress:

- ***Adjust seating and lighting***
- ***Avoid hazards, arrangement of hardware and cables***
- ***Workspace and working conditions, take breaks, wrist rests***

Minimise risk:

- ***Virus-checking software, anti-spam software, firewall***
- ***Treat files***
- ***Software and attachments from unknown sources with caution***

Information security:

- ***Copies, backup***
- ***Password, PIN***
- ***Avoid inappropriate disclosure of information***

Staying safe:

- ***Protect personal information, avoid misuse of images, use appropriate language, respect confidentiality, use copy lists with discrimination***

Guidelines and procedures:

- ***Set by employer or organisation or local centre***

Topic:

- *Health and safety, security, copyright, netiquette*

Outcome 4 Carry out routine maintenance of IT systems and respond to routine IT system problems (EP3)

The learner should be able to and understand:

Routine maintenance:
- *What maintenance can be done safely, what should be left to experts?*
- *What problems may happen if maintenance is not done?*
- *Clean hardware, manufacturer's guidelines*
- *Delete unwanted data or files*

Cleaning:
- *For different components of an IT system*
- *To maintain functionality, to maintain appearance*
- *Printer: Replace printer consumables (paper, toner cartridge); print test page, align cartridge*
- *Expert advice:*
  - *Limits of own understanding and skills, help menus, manufacturer's guidelines*
  - *How to follow advice, information needed by experts*

IT problems:
- *Program not responding, error dialogue*
- *Storage full, paper jam*

Unit 103 Set up an IT system

Level: *1*
Credit value: *3*

Unit aim
This unit is about the ability to safely set up the components of an IT system (eg personal computer - PC, keyboard, mouse and printer), removable storage media (eg data stick or external DVD drive), communication service to access the Internet and associated software and check that they are working properly. On completion of this unit the candidate should be able to connect up the basic components of an IT system, removable storage media and a communication service safely using default setup routines and run simple tests to check it is working successfully.

Examples of context: Following supplier instructions to assemble the component parts of a new computer; add new peripheral or storage 'plug and play' devices; recycle used computer equipment

Learning outcomes
There are four learning outcomes to this unit.

The learner will:
1. ***Connect up a personal computer, printer and peripheral devices safely***
2. ***Connect to an IT communication service***
3. ***Set up software for use***
4. ***Check that the IT system and communication service are working successfully***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 103 Set up an IT system

Learning outcomes and assessment criteria

Outcome 1 Connect up a personal computer, printer and peripheral devices safely

The learner can:

1. ***Identify what IT system components, storage and peripheral devices are needed and how to connect them***
2. ***Identify any health and safety issues associated with setting up an IT system***
3. ***Connect up the components of an IT system safely, including a printer and other peripheral devices***
4. ***Connect removable storage media to a PC safely***

Outcome 2 Connect to an IT communication service

The learner can:

1. ***Connect communication hardware safely to a PC***
2. ***Identify the details needed to connect to an Internet Service Provider (ISP)***
3. ***Connect to a communication service from a PC***

Outcome 3 Set up software for use

The learner can:

1. ***Configure the user interface to meet needs***
2. ***Identify what security precautions need to be addressed when connecting to the internet***
3. ***Set up and configure virus protection software***
4. ***Set up files and software to meet needs***

Outcome 4 Check that the IT system and communication service are working successfully

The learner can:

1. ***Identify simple tests that can be used to check the system***
2. ***Identify simple communication tests that can be used to check the internet connection***
3. ***Run tests to check that the system and communication service are working successfully***
4. ***Identify how to report faults and seek expert help***
5. ***Respond to error messages and report faults as appropriate***

Teaching 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.

Outcome 1 Connect up a personal computer, printer and peripheral devices safely

The learner should be able to and understand:

Health and safety issues:

- ***Health and safety issues, risks from hardware, electrical connection risks and guidelines, use and disposal of cleaning materials, handling equipment. Risks to self and others from using hardware; health and safety point of contact***

IT system components:

- ***Will vary according to the set up, for example: Personal computer, monitor, keyboard, mouse (or other pointing device)***

Peripheral devices:

- ***Speakers, scanner, games console, joystick; Plug and play devices; default setup routines, printer and other device drivers***

Removable storage media:

- ***Disk, CD/DVD, data/memory stick, media card, mobile device, removable hard drive; default setup routines***

Outcome 2 Connect to an IT communication service

The learner should be able to and understand:

Communication hardware:

- ***Router, modem, mobile data device, wireless router***

Communication service:

- ***Broadband, dial up, wireless, network connections, mobile device***

Outcome 3 Set up software for use

The learner should be able to and understand:

User interface:

- ***Operating system, date, time, language settings; Set up user account; desktop shortcuts***

Set up files and software applications:

- ***Software licence; installation disks; manuals; default settings; autosave settings; secure removal/transfer of data***

Outcome 4 Check that the IT system and communication service are working successfully

The learner should be able to and understand:

System tests:

- ***Hardware and software; Print test pages, check files are saved on storage media, open and close applications; open and close files; access network files and applications; certificates and labelling***

Communication tests:

- ***Send and receive test email, navigate to ISP website***

Report faults:

- ***Helpdesk; information needed by experts; manufacturer's faults***

Unit 104 Optimise IT system performance

Level: ***1***
Credit value: ***2***

Unit aims
This is the ability to keep a personal computer system up to date, fully functional and operating efficiently; and to solve problems and errors involving the interaction between hardware and software components.

On completion of this unit the candidate should be able to manage software, disks and devices to maintain hardware and software (system) performance, solve common hardware and software problems and errors, getting help with more difficult problems.

Examples of context: Organising files, backing up data in line with organisational guidelines. Solving common errors (eg a file that cannot be found on a computer hard drive); knowing how to restart hardware or software and get advice.

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:
1. ***Maintain hardware and software in working order***
2. ***Manage files to maintain system performance***
3. ***Respond to common IT system problems and errors***
4. ***Customise the working environment to meet needs***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:
- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 104 Optimise IT system performance
Learning outcomes and assessment criteria

Outcome 1 Maintain hardware and software in working order

The learner can:

1. ***Identify the operating system and capacity of the computer system***
2. ***Take appropriate steps to protect computer hardware against loss or damage***
3. ***Run anti-virus and other security software regularly***
4. ***Set up printers and other peripheral devices***

Outcome 2 Manage files to maintain system performance

The learner can:

1. ***Use file navigation software to organise files into an appropriate folder structure***
2. ***Backup and restore files and folders***
3. ***Identify why it is important to undertake routine file housekeeping of the information stored on computer systems***
4. ***Carry out routine file housekeeping so that information is easy to find***

Outcome 3 Respond to common IT system problems and errors

The learner can:

1. ***Identify IT common system problems and responses***
2. ***Respond appropriately to common IT system problems***
3. ***Identify where to get expert advice***
4. ***Seek expert advice when appropriate***

Outcome 4 Customise the working environment to meet needs

The learner can:

1. ***Adjust system settings as appropriate to individual needs***

Teaching 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.

Outcome 1 Maintain hardware and software in working order

The learner should be able to and understand:

Computer system:
- ***Make, model, serial number; operating system version; memory capacity; disk capacity***

Security software:
- ***Anti-virus, malware. Frequency, timing***

Outcome 2 Manage files to maintain system performance

The learner should be able to and understand:

Information storage:
- ***Data files, folders, sub-folders, storage media***

File housekeeping:
- ***Following local guidelines and conventions for naming and labelling; organising files, folders and storage media; saving back-ups; deleting unwanted files***

Outcome 3 Respond to common IT system problems and errors

The learner should be able to and understand:

IT system problems:
- ***Program not responding, paper jam, storage full, error dialogue***

Expert advice:
- ***Limits of own understanding and skills, help menus, manufacturer's guidelines, how to follow advice, information needed by experts***

Outcome 4 Customise the working environment to meet needs

The learner should be able to and understand:

System settings:
- ***Desktop, input and output settings***

Unit 105 IT security for users

Level: *1*
Credit value: *1*

Unit aim
This is the ability to protect hardware, software malfunction and unauthorised access. On completion of this unit the candidate should be able to identify day-to-day security risks and the laws and guidelines that affect the use of IT; and use simple methods to protect software and personal data (eg risks from people getting access to it who are not authorised, from viruses or from hardware not working properly).

Examples of context: Regular change of password using a range of alphanumeric characters and symbols. Understanding the importance of applying organisational procedures for maintaining security consistently.
Learning outcomes
There is one learning outcome to this unit.

The learner will:

1. Use appropriate methods to minimise security risks to IT systems and data

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 105 IT security for users
Learning outcomes and assessment criteria

Outcome 1 Use appropriate methods to minimise security risks to IT systems and data

The learner can:

1. ***Identify security issues that may threaten system performance***
2. ***Take appropriate security precautions to protect IT systems and data***
3. ***Identify threats to information security associated with the widespread use of technology***
4. ***Take appropriate precautions to keep information secure***
5. ***Follow relevant guidelines and procedures for the secure use of IT***
6. ***Describe why it is important to backup data securely***
7. ***Ensure personal data is backed up to appropriate media***

Teaching 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.

Outcome 1 Use appropriate methods to minimise security risks to IT systems and data

The learner should be able to and understand:

Threats to system performance:

- ***Unwanted e-mail (often referred to as "spam"), malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers) and hackers; hoaxes***

Security precautions:

- ***Use access controls: Physical controls, locks, passwords, access levels***
- ***Run anti-virus software, adjust firewall settings, adjust internet security settings; carry out security checks, report security threats or breaches***
- ***Backup; store personal data and software safely***
- ***Treat messages, files, software and attachments from unknown sources with caution***

Threats to information security:

- ***From theft, unauthorised access, accidental file deletion, use of removable storage media***
- ***Malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers), hackers, phishing and identity theft***
- ***Unsecured and public networks, default passwords and settings, wireless networks, Bluetooth, portable and USB devices***

Access to information sources:

- ***Username and password/PIN selection, how and when to change passwords; online identity/profile***
- ***Real name, pseudonym, avatar; what personal information to include, who can see the information***
- ***Respect confidentiality, avoid inappropriate disclosure of information***

Security guidelines and procedures:

- ***Set by: employer or organisation; security, privacy***

Unit 106 IT communication fundamentals

Level: *1*
Credit value: *2*

Unit aims

This is the ability to access, search for and retrieve information using browser software from the Internet and/or intranets and exchange information using e-mail or IT-based communication systems.

On completion of this unit a candidate should be able to use appropriate IT tools and techniques to find and evaluate information and send and receive messages using IT-based communication systems when undertaking routine and straightforward activities.

Examples of context: Finding the details of a journey, including the best match of convenience, speed and cost; gathering and evaluating information about competing products or services; using e-mail to arrange time and place of a meeting and agree agenda.

Learning outcomes

There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use a variety of sources of information to meet needs [FSI1:1]***
2. ***Access, search for, select and use Internet-based information and assess its fitness for purpose [FSI1:2]***
3. ***Select and use IT to communicate and exchange information [DPC1:5]***

Guided learning hours

It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 106 IT communication fundamentals
Learning outcomes and assessment criteria

Outcome 1 Use a variety of sources of information to meet needs [FSI1:1]

The learner can:

1. ***Use appropriate sources of IT-based and other forms of information to meet needs [FSI1:1.1]***
2. ***Identify different features of information***
3. ***Recognise copyright constraints on the use of information [FSI1:1.2]***

Outcome 2 Access, search for, select and use Internet-based information and assess its fitness for purpose [FSI1:2]

The learner can:

1. ***Access, navigate and search Internet sources of information purposefully and effectively [FSI1:2.1] (IE2)***
2. ***Use appropriate search techniques to locate and select relevant information [FSI1:2.2]***
3. ***Outline how the information meets requirements and is fit for purpose [FSI1:2.3] (IE4)***

Outcome 3 Select and use IT to communicate and exchange information [DPC1:5]

The learner can:

1. ***Create, access, read and respond appropriately to e-mail and other IT-based communication [DPC1:5.1]***
2. ***Use IT tools to maintain an address book and schedule activities [DPC1:5.2] [UIS1:2.1]***

Teaching 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.

Outcome 1 Use a variety of sources of information to meet needs [FSI1:1]

The learner should be able to and understand:

Sources of information:

- ***Newspapers, books, images, maps, conversations, CDs, DVDs, text messages, podcasts, Internet, intranet, web logs, web based reference sites***

Features of information:

- ***Factual information, creative work, opinions, information that is continually updated (or live), interactive information, guides and directories***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism, permissions***

Outcome 2 Access, search for, select and use Internet-based information and assess its fitness for purpose [FSI1:2]

The learner should be able to and understand:

Access, navigate and search:

- ***Enter a web address, use a search engine, browse, save and use bookmarks***

Search techniques:

- ***Search key words, quotation marks, search within results, relational operators, 'find' or search tool, turn questions into key words for an online query***

Evaluate information:

- ***Recognise intention and authority of provider, currency of the information, relevance, accuracy, bias, level of detail***

Outcome 3 Select and use IT to communicate and exchange information [DPC1:5]

The learner should be able to and understand:

Email and other IT-based communications:

- ***Open mailbox, read, reply to individuals, reply to all, reply with history, delete messages, use group list, forward; communicate using from, to, cc, bcc; subject and content fields, add and open attachments, use instant messaging, contribute to forums, web conferences, web logs or web based reference sites***

Address book:

- ***Add, amend and delete contact entries, contacts list***

Schedule activities:

- ***Task list***

- ***Calendar; send and respond to meeting invitations***

Unit 107 Using the internet

Level: ***1***
Credit value: ***3***

Unit aims
This is the ability to set up and use appropriate connection methods to access the Internet; make the best use of browser software tools and techniques to search for, retrieve and exchange information using a browser or public search engine, and work safely and securely online.

On completion of this unit a candidate should be able to understand and use a connection method and basic Internet software tools and techniques to search for and exchange information for straightforward or routine activities.

Internet tools and techniques will be defined as 'basic' because:

- ***the software tools and functions will be pre-determined or commonly used; and***
- ***the range of techniques used for searching and exchanging information will be familiar or commonly undertaken.***

Examples of context: Using the Internet to research a journey or holiday; using e-learning content via a company intranet or virtual learning environment

Learning outcomes
There are 5 learning outcomes to this unit. The learner will be able to:

1. ***Connect to the internet***
2. ***Use browser software to navigate web pages***
3. ***Use browser tools to search for information from the internet***
4. ***Use browser software to communicate information online***
5. ***Follow and understand the need for safety and security practices when working online***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***

- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 107 Using the internet
Learning outcomes and assessment criteria

Outcome 1 Connect to the internet

The learner can:

1. ***Identify different types of connection methods that can be used to access the Internet***
2. ***Access the internet or intranet***

Outcome 2 Use browser software to navigate web pages

The learner can:

1. ***Use browser tools to navigate web pages***
2. ***Identify when to change browser settings to aid navigation***
3. ***Adjust browser settings to meet needs***
4. ***Use browser help facilities***

Outcome 3 Use browser tools to search for information from the internet

The learner can:

1. ***Select and use appropriate search techniques to locate information***
2. ***Outline how information meets requirements***
3. ***Use references to make it easier to find information another time***
4. ***Download and save different types of information from the Internet***

Outcome 4 Use browser software to communicate information online

The learner can:

1. ***Select and use tools and techniques to communicate information online***
2. ***Use browser tools to share information sources with others***
3. ***Submit information online using forms or interactive sites***
4. ***Identify opportunities to post or publish material to websites***

Outcome 5 Follow and understand the need for safety and security practices when working online

The learner can:

1. ***Identify the threats to user safety when working online***
2. ***Outline how to minimise internet security risks***
3. ***Work responsibly and take appropriate safety and security precautions when working online***
4. ***Keep personal information secure***
5. ***Follow relevant laws, guidelines and procedures for the use of the Internet***

Teaching 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.

Outcome 1 Connect to the internet

The learner should be able to and understand:

Connection methods:

- ***LAN, VPN; mobile phone, modem, router, wireless, dial-up, broadband***

Obtaining access:

- ***ISP, user name, password; hardware and software requirements***

Outcome 2 Use browser software to navigate web pages

The learner should be able to and understand:

Browser tools:

- ***Enter, back, forward, refresh, stop, history, new window, new tab***
- ***Toolbar, search bar, address bar; home, go to, follow link, URL***

Browser settings:

- ***Homepage, autofill, security, pop-ups, appearance, privacy; search engine***
- ***Toolbars, zoom***

Outcome 3 Use browser tools to search for information from the internet

The learner should be able to and understand:

Search techniques:

- ***Search key words, quotation marks, search within results, relational operators, 'find' or search tool, turn questions into key words for an online query***

Information requirements:

- ***Recognise intention and authority of provider, currency of the information, relevance, accuracy, bias, level of detail***

References:

- ***History, favourites, bookmarks; links***
- ***Log useful sites***

Download information:

- ***Webpage, website; Images, text, numbers, sound, games, video, TV, music***

Outcome 4 Use browser software to communicate information online

The learner should be able to and understand:

Communicate information:
- ***Saved information (pod-casts, text, images), real time information (blogs, instant messaging)***

Share information sources:
- ***Send link, send webpage***

Submit information:
- ***Fill-in and submit web forms***
- ***Ratings, reviews, recommendations***
- ***Wikis***
- ***Discussion forums, interactive sites***
- ***Netiquette***

Outcome 5 Follow and understand the need for safety and security practices when working online

The learner should be able to and understand:

Safety precautions:
- ***Firewall settings, Internet security settings***
- ***Report inappropriate behaviour***
- ***Report security threats or breaches***
- ***Netiquette, content filtering, avoid inappropriate disclosure of information***

Threats to user safety:
- ***Abusive behaviour ("cyber bullying"), inappropriate behaviour and grooming***
- ***Abuse of young people***
- ***False identities***
- ***Financial deception***
- ***Identity theft***

Information security:
- ***Username and password/PIN selection, online identity/profile***
- ***Real name, pseudonym, avatar***
- ***What personal information to include, who can see the information, withhold personal information***

Minimise risk:
- ***Virus-checking software, anti-spam software, firewall***
- ***Treat messages, files, software and attachments from unknown sources with caution***

Laws, guidelines and procedures:
- ***Set by employer or organisation or centre relating to health and safety, security***
- ***Laws: relating to copyright, software download and licensing***

Unit 108 Using e-mail

Level: *1*
Credit value: *2*

Unit aims
This is the ability to make the best use of e-mail software to safely and securely send, receive and store messages.

On completion of this unit a candidate should be able to understand and use a range of basic e-mail software tools to send, receive and store messages for straightforward or routine activities.

E-mail tools and techniques will be defined as 'basic' because:

- ***the software tools and functions will be predetermined or commonly used; and***
- ***the techniques used will be familiar or commonly undertaken.***

Examples of context: send an email to request information on a product or service; create inbox folders to store messages

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Use e-mail software tools and techniques to compose and send messages***
2. ***Manage incoming email effectively***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 108 Using e-mail
Learning outcomes and assessment criteria

Outcome 1 Use e-mail software tools and techniques to compose and send messages

The learner can:

1. ***Use software tools to compose and format e-mail messages***
2. ***Attach files to e-mail messages***
3. ***Send e-mail messages***
4. ***Identify how to stay safe and respect others when using e-mail***
5. ***Use an address book to store and retrieve contact information***

Outcome 2 Manage incoming email effectively

The learner can:

1. ***Follow guidelines and procedures for using e-mail***
2. ***Identify when and how to respond to e-mail messages***
3. ***Read and respond to e-mail messages appropriately***
4. ***Identify what messages to delete and when to do so***
5. ***Organise and store e-mail messages***
6. ***Respond appropriately to common e-mail problems***

Teaching 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.

Outcome 1 Use e-mail software tools and techniques to compose and send messages

The learner should be able to and understand:

Compose and format e-mail:
- ***Format text (font, size, colour), format paragraphs (alignment, bullets, numbered list), spell check***

Send e-mail:
- ***To, from, cc, subject; reply, reply all, forward***

Staying safe:
- ***Avoid inappropriate disclosure of personal information***
- ***Avoid misuse of images***
- ***Use appropriate language, respect confidentiality***
- ***Use copy lists with discrimination***

Address book:
- ***Add, edit, delete contact entries, contacts list***

Outcome 2 Manage incoming email effectively

The learner should be able to and understand:

Guidelines and procedures:
- ***Set by employer or organisation, security, copyright***
- ***Netiquette***
- ***Password protection***

E-mail responses:
- ***Decide on priorities, gather information needed to respond, decide when and who to copy in, what to do about attachments***

Organise and store e-mail:
- ***Folders, subfolders, delete unwanted messages, backup, address lists***

Email problems:
- ***Due to message size or number of attachments, messages from unknown users (SPAM, junk, chain-mails, 'phishing'), viruses***

Unit 109 Using collaborative technologies

Level: *1*
Credit value: *3*

Unit aim
This is the ability to use IT tools and devices for collaborative working and communications, such as web or video conferencing, instant messaging/chat, online phone and video calls; online forums, social networking sites, wikis and other centralised depositories for documents, blogging, RSS and data feeds, bulk SMS or online work management tools.

On completion of this unit a candidate should be able to safely use IT tool and devices to work collaboratively by:

- ***preparing and accessing IT tools and devices;***
- ***playing a responsible and active role in real-time communication; and***
- ***contributing relevant information.***

Any aspect that is unfamiliar will require support and advice from others.

Examples of context: Typical collaborative activities may include – setting up a profile on a social networking site, taking part in an online conference or chat session.

Learning outcomes
There are four learning outcomes to this unit.

The learner will:

1. ***Stay safe and secure when using collaborative technology***
2. ***Set up and access IT tools and devices for collaborative working***
3. ***Prepare collaborative technologies for use***
4. ***Contribute to tasks using collaborative technologies***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 109 Using collaborative technologies
Learning outcomes and assessment criteria

Outcome 1 Stay safe and secure when using collaborative technology

The learner can:

1. ***Follow guidelines for working with collaborative technology***
2. ***Identify risks in using collaborative technology and why it is important to avoid them***
3. ***Carry out straightforward checks on others' online identities and different types of information***
4. ***Identify when and how to report online safety and security issues***
5. ***Identify what methods are used to promote trust***

Outcome 2 Set up and access IT tools and devices for collaborative working

The learner can:

1. ***Set up IT tools and devices that will enable you to contribute to collaborative work***
2. ***Identify the purpose for using collaborative technologies and expected outcomes***
3. ***Identify which collaborative technology tools and devices to use for different communication media***
4. ***Identify what terms and conditions apply to using collaborative technologies***

Outcome 3 Prepare collaborative technologies for use

The learner can:

1. ***Use given details to access collaborative technologies needed for a collaborative task***
2. ***Adjust basic settings on collaborative technologies***
3. ***Change the environment of collaborative technologies***
4. ***Set up and use a data reader to feed information***
5. ***Identify what and why permissions are set to allow others to access information***

Outcome 4 Contribute to tasks using collaborative technologies

The learner can:

1. ***Contribute responsibly and actively to collaborative working***
2. ***Contribute to producing and archiving the agreed outcome of collaborative working***
3. ***Identify when there is a problem with collaborative technologies and where to get help***
4. ***Respond to simple problems with collaborative technologies***

Teaching 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.

Outcome 1 Stay safe and secure when using collaborative technology

The learner should be able to and understand:

Guidelines for using collaborative technology:

- ***Guidelines set by your organisation or community of interest***
- ***About uses, security, safety, copyright, plagiarism, libel, confidentiality and data protection***

Risks when working with collaborative technologies:

- ***Inappropriate disclosure of personal information, misuse of images, appropriate language, respect confidentiality, copy lists, what to do in a power cut, about data loss***

Checks on others' identities and different types of information:

- ***Compare sources, cross references***

Methods to promote trust:

- ***Contact information, membership of professional bodies, recommendations, links***

Outcome 2 Set up and access IT tools and devices for collaborative working

The learner should be able to and understand:

Connect and configure collaborative technologies:

- ***Connect to another site, check whether both sites are connected***

Purposes for collaborative working:

- ***Will vary according to the task, but may include:***
  - ***sharing, displaying and recording information***
  - ***discussing and reflecting, establishing identity, joining interest groups***
  - ***developing ideas, contributing to research***

Outcomes of collaborative working:

- ***Measurable (e.g. document, minutes, notes, project plan, transcript)***
- ***Ephemeral (e.g. conversation, agreement)***

Collaborative technology tools and devices:

- ***Hardware: mobile, laptop, desktop, peripherals (eg headset, handset, microphone, camera, 3G modem)***
- ***Software: products, services, sites***

Communication media:

- ***Text, audio/spoken, still/video/animated images***

Outcome 3 Prepare collaborative technologies for use
The learner should be able to and understand:

Access to collaborative technologies:
- ***Download software, agree terms and conditions, register or set up an ID***

Adjust settings:
- ***Hardware: colour, type size, window size, volume***
- ***Browser: cookies, pop-ups***
- ***Security settings: firewall***

Environments for collaborative technologies:
- ***User interface: choose skins, templates***
- ***Work environment: lighting, position of devices***

Permissions:
- ***Web address, phone number, user name and password, access code***

Outcome 4 Contribute to tasks using collaborative technologies
The learner should be able to and understand:

Contributing responsibly:
- ***Follow the rules of 'netiquette', respect others contributions, avoid dominating and not responding***

Archiving collaborative outcomes:
- ***Cut, paste, save***

Problems with collaborative technologies:
- ***Routine (eg settings, software not responding, hardware connections)***

Respond to problems:
- ***Follow on screen help, know who to ask for expert help***

Unit 110 Using mobile IT devices

Level: ***1***
Credit value: ***2***

Unit aims
This is the ability to set up and use mobile or handheld devices such as a smartphone, PDA, portable media player, electronic organiser or data logger, for data capture, processing, exchange and storage.

On completion of this unit a candidate should be able to set up and use a mobile or handheld device securely to input and store data and to transfer data to and from another device.

The use of mobile technologies will be defined as 'basic' because:

- ***the tools and functions on the mobile device will be pre-loaded and***
- ***the techniques used for sharing files between devices will be familiar or commonly undertaken.***

Examples of context: using a camera phone to capture an image and send in a text message; transfer music files or podcasts to mobile device; synchronising address book information between mobile phone and computer; using a data logger to capture on-site data and upload to main system; using voting technologies to capture or provide feedback. Downloading new ring tone or themes on the mobile phone. Using a PDA to support day to day functions at work or to support the contact between colleagues and friends

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Set up the mobile device to meet needs***
2. ***Use applications and files on the mobile device***
3. ***Transfer data to and from the mobile device***
4. ***Maintain the performance of the mobile device***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***

- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 110 Using mobile IT devices
Learning outcomes and assessment criteria

Outcome 1 Set up the mobile device to meet needs

The learner can:

1. ***Set up the mobile device for use***
2. ***Use mobile device interface features effectively***
3. ***Identify when and how to adjust device settings***
4. ***Adjust device settings to meet needs***
5. ***Identify any specific health and safety issues associated with the use of mobile devices***
6. ***Follow guidelines and procedures for the use of mobile devices***

Outcome 2 Use applications and files on the mobile device

The learner can:

1. ***Identify the different applications on the mobile device and what they can be used for***
2. ***Select and use applications and files on the mobile device for an appropriate purpose***
3. ***Input data accurately into a mobile device***
4. ***Organise, store and retrieve data on a mobile device***

Outcome 3 Transfer data to and from the mobile device

The learner can:

1. ***Identify different types of secure connection methods that can be used between devices***
2. ***Transfer information to and from a mobile device***
3. ***Recognise copyright and other constraints on the use and transfer of information***
4. ***Identify why it is important to stay safe, keep information secure and to respect others when using a mobile device***
5. ***Keep information secure when using a mobile device***

Outcome 4 Maintain the performance of the mobile device

The learner can:

1. ***Identify factors that can affect performance of the mobile device***
2. ***Use appropriate techniques to maintain the performance of the mobile device***
3. ***Identify common problems that occur with mobile devices and what causes them***
4. ***Identify when to try to solve a problem and where to get expert advice***
5. ***Use available resources to respond quickly and appropriately to common device problems***

Teaching 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.

Outcome 1 Set up the mobile device to meet needs

The learner should be able to and understand:

Set up mobile device:
- ***Charging battery***
- ***Access (eg password, login)***
- ***SIM card, connection (eg phone, Internet, cable)***

Mobile device interface features:
- ***Display, menu, submenu, toolbar, icon, button, keypad, wheel***
- ***Start and shutdown***

Device settings:
- ***Resolution (eg screen, image), sound (eg mute, volume, ringtone), appearance (eg colour, theme)***

Guidelines and procedures:
- ***Set by: employer or organisation or centre***
- ***About: health and safety, security, copyright***

Outcome 2 Use applications and files on the mobile device

The learner should be able to and understand:

Mobile applications:
- ***Phone, camera, address book, calendar, media, browser, games, notes, messages, office applications***

Applications and files:
- ***Games and interactive material, documents, music files, video animations, image slideshows and presentations, emails, Internet pages, collaborative tools; PDF documents, Office documents, e-books, Flash animations;***

Input data:
- ***Touch screen, stylus, keypad, voice command***
- ***Create products on the device (documents such as text notes or email, files such as sound recording, image or video capture)***

Store and retrieve data:
- ***Files (eg create, name, open, save, save as, print, close, find), folders (eg create, name), navigate (eg menu, tool bar, icon, scroll bar, button)***

Outcome 3 Transfer data to and from the mobile device

The learner should be able to and understand:

Secure connection:
- ***Password control, Bluetooth, infrared, cable, device pairing***
- ***Synchronisation software***

Transfer information:
- ***Export, drag and drop, SMS, synchronise***
- ***When transfer successful***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism, permissions***

Staying safe:
- ***Protect personal information, avoid misuse of images, use appropriate language, respect confidentiality, use copy lists with discrimination***

Keep information secure:
- ***Username and password/PIN selection***
- ***Online identity/profile; real name, pseudonym, avatar***
- ***What personal information to include, who can see the information, withhold personal information***

Outcome 4 Maintain the performance of the mobile device

The learner should be able to and understand:

Mobile device performance:
- ***Battery life***
- ***Application and file use***
- ***Device maintenance***
- ***Network availability, interference***

Maintain performance:
- ***Carry out routine maintenance (battery charging, cleaning of handset)***
- ***Communication settings such as Bluetooth or Wi-Fi turned off when not in use***
- ***Closing applications after use***

Mobile device problems:
- ***Compatibility between files, systems and connections***
- ***Connection lost, card full***
- ***Low bandwidth***

Expert advice:
- ***Limits of own understanding and skills, help menus, manufacturer's guidelines***
- ***How to follow advice, information needed by experts***

Unit 111 Personal information management software

Level: *1*
Credit value: *2*

Unit aims
On completion of this unit a candidate should be able to range of basic personal information management tools and techniques to organise and plan their own time and tasks.

Examples of context: Keep a personal address book on a mobile phone; beam own business card to another mobile device; send out meeting invitations to colleagues.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use a calendar to schedule appointments***
2. ***Use a task list to prioritise activities***
3. ***Use an address book to store, organise and retrieve contact information***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 111 Personal information management software
Learning outcomes and assessment criteria

Outcome 1 Use a calendar to schedule appointments

The learner can:

1. ***Create, edit and delete calendar entries***
2. ***Arrange recurring appointments***
3. ***Invite others to meetings and monitor attendance***
4. ***Respond to meeting requests from others***
5. ***Create reminders for calendar appointments***
6. ***Organise and display appointments as required***

Outcome 2 Use a task list to prioritise activities

The learner can:

1. ***Create, edit and delete task information***
2. ***Organise and display tasks, setting targets for completion***
3. ***Monitor task progress and set reminders***
4. ***Report on task status and activity***

Outcome 3 Use an address book to store, organise and retrieve contact information

The learner can:

1. ***Create, edit and delete contact information***
2. ***Organise and display contact information***
3. ***Set up a distribution list***
4. ***Describe why it is important use personal data responsibly and safely***
5. ***Outline why and how to keep contact information up to date***

Teaching 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.

Outcome 1 Use a calendar to schedule appointments

The learner should be able to and understand:

Recurring appointments:
- ***Daily, weekly, monthly, yearly***

Invite to meetings:
- ***Check personal availability***

Display appointments:
- ***On screen, for print; display style (month, week, day)***

Outcome 2 Use a task list to prioritise activities

The learner should be able to and understand:

Organise tasks:
- ***By category, status, target date***
- ***Respond to task requests***

Task progress:
- ***Percentage completion***
- ***Filters***

Outcome 3 Use an address book to store, organise and retrieve contact information

The learner should be able to and understand:

Organise contacts:
- ***By name***
- ***Customise display***
- ***Selected fields***
- ***Filters***

Responsible use:
- ***Password protection***
- ***Respect confidentiality***
- ***Public profiles***
- ***Trust, data protection***

Unit 112 IT software fundamentals

Level: *1*
Credit value: *3*

Unit aims
On completion of this unit a candidate should be able to use appropriate predefined or commonly used IT tools to develop and produce information for tasks and activities that are straightforward or routine.

Examples of context: producing a letter, making a slide for a presentation, recording spending, drawing boxes and arrows to highlight information.

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Select and use software applications to meet needs and solve problems [UIS1:2]***
2. ***Enter, develop and format different types of information to suit its meaning and purpose***
3. ***[DPC1:1 < less images 1.4; numbers 1.5; graphs 1.7; records 1.8]***
4. ***Present information in ways that are fit for purpose and audience [DPC1:3]***
5. ***Make effective use of IT tools and facilities to present information [DPC1:4]***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 112 IT software fundamentals
Learning outcomes and assessment criteria

Outcome 1 Select and use software applications to meet needs and solve problems [UIS1:2]

The learner can:

1. *Identify different software applications and give examples of their use*
2. *Select and use appropriate software applications to develop, produce and present different types of information to meet needs and solve problems [UIS1:1.3 part]*
3. *Identify what types of information are needed*

Outcome 2 Enter, develop and format different types of information to suit its meaning and purpose [DPC1:1 < less images 1.4; numbers 1.5; graphs 1.7; records 1.8]

The learner can:

1. *Enter, organise and format different types of information to meet needs [DPC1:1.1]*
2. *Apply editing techniques to refine information as required*
3. *Combine information of different forms or from different sources to meet needs [DPC1:2.1]*
4. *Select and use appropriate page layout to present information effectively [DPC1:1.2]*

Outcome 3 Present information in ways that are fit for purpose and audience [DPC1:3]

The learner can:

1. *Work accurately and proof-read, using software facilities where appropriate for the task [DCP1:3.1]*
2. *Produce information that is fit for purpose and audience using commonly accepted layouts as appropriate [DPC1:3.2]*

Outcome 4 Make effective use of IT tools and facilities to present information [DPC1:4]

The learner can:

1. *Review and modify work as it progresses to ensure the result is fit for purpose and audience [DPC1:4.2] (RL3)*
2. *Review the effectiveness of the IT tools selected to meet presentation needs [DPC1:4.1]*

Teaching 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.

Outcome 1 Select and use software applications to meet needs and solve problems [UIS1:2]

The learner should be able to and understand:

Software applications:

- ***Types: word processing, spreadsheet, graphics, Internet browser, e-mail, audio and video software***
- ***Use: open and close applications; switch between applications***

Types of information:

- ***Text, numbers, images, graphics, sound, data records***

Outcome 2 Enter, develop and format different types of information to suit its meaning and purpose [DPC1:1 < less images 1.4; numbers 1.5; graphs 1.7; records 1.8]

The learner should be able to and understand:

Organise information:

- ***Headings, lists, tables, use of templates, sort, charts and graphs, records, simple calculations***

Format information:

- ***Formatting techniques appropriate to the type of information, for example:***
  - ***Text: bullets, numbering, alignment, tabs, line spacing, colour, font, style, size, simple tables***
  - ***Numbers: currency, percentages, number of decimal places***
  - ***Images: size, position***

Editing techniques:

- ***Editing techniques appropriate to the type of information, for example:***
  - ***select, copy, cut, paste, undo, redo, drag and drop, find, replace, insert, delete, size, crop, position***

Combine information:

- ***Combine images with text (eg photo with caption)***
- ***Presentation with audio and/or video***
- ***Numbers with charts and graphs***

Page layout:

- ***Size, orientation, margins, page breaks, page numbers, headers, footers, date and time***

Outcome 3 Present information in ways that are fit for purpose and audience [DPC1:3]

The learner should be able to and understand:

Work accurately and proof-read:

- ***Ensure meaning is clear, seek views of others, check spelling, check calculations, ensure consistent layout, print preview***

Information fit for purpose:

- ***Letter, memo, report, newsletter, poster, information sheet, webpage, multi-media presentation, budget, invoice, stock list***

Outcome 4 Make effective use of IT tools and facilities to present information [DPC1:4]

The learner should be able to and understand:

IT tools selection:

- ***Time taken, convenience, cost, quality, accuracy***

Review and modify work:

- ***Evaluate the quality of the information used***
- ***Produce drafts***
- ***Review against initial plans***
- ***Check with intended audience***

Unit 113 Audio software

Level: *1*
Credit value: *2*

Unit aims
This is the ability to use a software application designed to record and edit audio sequences.

On completion of this unit a candidate should be able to use a range of basic audio software tools and techniques appropriately to record and edit straightforward or routine audio sequences.

Audio software tools and techniques will be defined as 'basic' because:

- ***the software tools and functions involved will be predefined or commonly used;***
- ***the range of inputting, manipulation and outputting techniques are straightforward or routine;***
- ***the file type and structure will be predetermined or familiar.***

Examples of context: Recording some sound footage then editing it to create a 30 second audio clip for a presentation or to post to a 3rd party website; or recording a short interview using a digital Dictaphone and editing to create a sound clip to add to a webpage.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use audio hardware and software to capture sequences***
2. ***Use audio software tools to combine and edit sequences***
3. ***Play and present audio sequences***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 113 Audio software
Learning outcomes and assessment criteria

Outcome 1 Use audio hardware and software to capture sequences

The learner can:

1. ***Identify the input device and associated software to use***
2. ***Use input devices and built-in audio software to record information to meet needs***
3. ***Identify the file format used by the input device***
4. ***Store and retrieve sequences using pre-set file formats, in line with local guidelines and conventions where available***

Outcome 2 Use audio software tools to combine and edit sequences

The learner can:

1. ***Identify the audio editing software to use for the file format***
2. ***Cut and paste short sequences to meet needs***
3. ***Combine information of different forms or from different sources, in line with any copyright constraints***
4. ***Identify copyright constraints on using others' information***

Outcome 3 Play and present audio sequences

The learner can:

1. ***Identify appropriate playback software to use for the sequence***
2. ***Identify the display device to use for the sequence***
3. ***Select and use appropriate combination of software and display device to playback audio sequence***
4. ***Adjust playback and display settings so that sequences are presented to meet needs***

Teaching 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.

Outcome 1 Use audio hardware and software to capture sequences

The learner should be able to and understand:

Browser tools:

- ***Enter, back, forward, refresh, history, bookmark, new window, new tab***

Input devices:

- ***Video camera, microphone, Dictaphone, mobile phone***
- ***Input techniques:***
  - ***copy and paste, file download (eg connect USB lead, drag and drop)***

File format:

- ***Supported by the software used (eg mpeg, png, wmv, quicktime)***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Use audio software tools to combine and edit sequences

The learner should be able to and understand:

Sequence:

- ***Specially recorded, existing; short (eg less than 2 mins)***

Combine information:

- ***Audio clips into presentations***

Techniques:

- ***Copy and paste, insert***

Forms of information:

- ***Sound (eg spoken word, music, sound effects)***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Outcome 3 Play and present audio sequences

The learner should be able to and understand:

Display device:

- ***PC, laptop, video camera, Dictaphone, mobile phone, handheld audio or video device (eg mp3 player, iPod)***

Adjust playback and display settings:

- ***Playback controls (eg start, stop, fast forward, rewind, pause)***
- ***Sound (eg volume)***

Unit 114 Video software

Level: *1*
Credit value: *2*

Unit aims
This is the ability to use a software application designed to record and edit video sequences.

On completion of this unit a candidate should be able to use a range of basic video software tools and techniques appropriately to record and edit straightforward or routine video sequences.

Video software tools and techniques will be defined as 'basic' because:

- ***the software tools and functions involved will be predefined or commonly used;***
- ***the range of inputting, manipulation and outputting techniques are straightforward or routine;***
- ***the file type and structure will be predetermined or familiar.***

Examples of context: Recording some video footage then editing it to create a 30 second video clip for a presentation or to post to a 3rd party website; or recording a short interview and editing to create a video clip to add to a webpage.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use video hardware and software to capture sequences***
2. ***Use video software tools to combine and edit sequences***
3. ***Play and present video sequences***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 114 Video software
Learning outcomes and assessment criteria

Outcome 1 Use video hardware and software to capture sequences

The learner can:

1. ***Identify the input device and associated software to use***
2. ***Use input devices and built-in video software to record information to meet needs***
3. ***Identify the file format used by the input device***
4. ***Store and retrieve sequences using pre-set file formats, in line with local guidelines and conventions where available***

Outcome 2 Use video software tools to combine and edit sequences

The learner can:

1. ***Identify the video editing software to use for the file format***
2. ***Cut and paste short sequences to meet needs***
3. ***Combine information of different forms or from different sources, in line with any copyright constraints***
4. ***Identify copyright constraints on using others' information***

Outcome 3 Play and present video sequences

The learner can:

1. ***Identify appropriate playback software to use for the sequence***
2. ***Identify the display device to use for the sequence***
3. ***Select and use appropriate combination of software and display device to playback audio sequence***
4. ***Adjust playback and display settings so that sequences are presented to meet needs***

Teaching 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.

Outcome 1 Use video hardware and software to capture sequences

The learner should be able to and understand:

Browser tools:

- ***Enter, back, forward, refresh, history, bookmark, new window, new tab***

Input devices:

- ***Webcam, video camera, mobile phone***
- ***Input techniques:***
  - ***copy and paste, screen grabs/shots, file download (eg connect USB lead, drag and drop)***

File format:

- ***Supported by the software used (eg mpeg, png, wmv, quicktime)***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Use video software tools to combine and edit sequences

The learner should be able to and understand:

Sequence:

- ***Specially recorded, existing; short (eg less than 2 mins), mode (eg b&w)***

Combine information:

- ***Video clips into presentations;***

Techniques:

- ***Copy and paste, insert, screen grabs/shots;***

Forms of information:

- ***Moving images***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Outcome 3 Play and present video sequences

The learner should be able to and understand:

Display device:

- ***PC, laptop, video camera, handheld video device (eg mp3 player, iPod)***

Adjust playback and display settings:

- ***Playback controls (eg start, stop, fast forward, rewind, pause)***
- ***Sound (eg volume)***
- ***Screen size (eg thumbnail, quarter screen, full screen)***

- ***Visual (eg contract, brightness, colour, b&w)***

Unit 115 Bespoke software

Level: ***1***
Credit value: ***2***

Unit aim
This is the ability to select and use a suitable bespoke software application to carry out an appropriate data processing task. It includes understanding the capabilities of the software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the software application appropriately and effectively. On completion of this unit a candidate should be able to use basic bespoke software tools and techniques appropriately for straightforward or routine information. Any aspect that is unfamiliar will require support and advice from others.

Bespoke software tools and techniques will be defined as 'basic' because the:

- ***software tools and functions involved will be predefined or commonly used;***
- ***range of inputting, manipulation and outputting techniques are straightforward or routine;***
- ***data type and structure will be predetermined or familiar.***

Learning outcomes
There are two learning outcomes to this unit.
The learner will:

1. ***Input, organise and combine information using bespoke software***
2. ***Use tools and techniques to edit, process, format and present information***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 115 Bespoke software
Learning outcomes and assessment criteria

Outcome 1 Input, organise and combine information using bespoke software

The learner can:

1. ***Input relevant information accurately into existing templates and/or files so that it is ready for processing***
2. ***Organise and combine information of different forms or from different sources***
3. ***Follow local and/or legal guidelines for the storage and use of data where available***
4. ***Respond appropriately to data entry error messages***

Outcome 2 Use tools and techniques to edit, process, format and present information

The learner can:

1. ***Use appropriate tools and techniques to edit, process or format information***
2. ***Check information meets needs, using IT tools and making corrections as appropriate***
3. ***Use appropriate presentation methods and accepted layouts***

Teaching 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.

Outcome 1 Input, organise and combine information using bespoke software

The learner should be able to and understand:

Types of bespoke information:

- ***Information will vary according to the software for example:***
  - ***text, numbers, photos, scanned images, graphic elements, digital recorded sound, graphs, charts, tables***

Inputting information:

- ***Inputting tools and techniques will vary according to the technology being used for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***

Combining information techniques:

- ***Insert, size, position, wrap, order, group***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format; compliance, audit and reporting requirements***
- ***File management will vary according to the application***

Outcome 2 Use tools and techniques to edit, process, format and present information

The learner should be able to and understand:

Editing, analysis and formatting techniques:

- ***Techniques will vary according to the software and task, for example:***
  - ***Editing: select, insert, delete, cut, copy, paste, drag and drop, find, replace, page layout, labelling, alignment, orientation, colour, resolution, size, pitch***
  - ***Process: sort, pre-set queries, simple operator formulas, charts and graphs***
  - ***Formatting: characters, lines, paragraphs, pages, file type***

Check bespoke information:

- ***Checks will vary according to the type of information and software, but could include:***
  - ***spell check, grammar check***
  - ***accuracy of figures***
  - ***labelling and size of images***
  - ***volume of sound***

Presentation methods:

- ***Methods will vary according to the software and task, for example:***
  - ***on screen display, publishing on a web site, hard copy print out, digital file***
- ***Organisational house style, branding***

Unit 116 Specialist software

Level: *1*
Credit value: *2*

Unit aims

This is the ability to select and use a suitable specialist software application to carry out an appropriate data processing task. It includes understanding the capabilities of the software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the software application appropriately and effectively.

On completion of this unit a candidate should be able to use basic specialist software tools and techniques appropriately for straightforward or routine information.

Specialist software tools and techniques will be defined as 'basic' because:

- ***the software tools and functions involved will be predefined or commonly used;***
- ***the range of inputting, manipulation and outputting techniques are straightforward or routine;***
- ***the data type and structure will be predetermined or familiar.***

Learning outcomes

There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Input, organise and combine information using specialist software***
2. ***Use tools and techniques to edit, process, format and present information***

Guided learning hours

It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 116 Specialist software
Learning outcomes and assessment criteria

Outcome 1 Input, organise and combine information using specialist software

The learner can:

1. *Input relevant information accurately into existing templates and/or files so that it is ready for processing*
2. *Organise and combine information of different forms or from different sources*
3. *Follow local and/or legal guidelines for the storage and use of data where available*
4. *Respond appropriately to data entry error message*

Outcome 2 Use tools and techniques to edit, process, format and present information

The learner can:

1. *Use appropriate tools and techniques to edit, process or format information*
2. *Check information meets needs, using IT tools and making corrections as necessary*
3. *Use appropriate presentation methods and accepted layouts*

Teaching 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.

Outcome 1 Input, organise and combine information using specialist software

The learner should be able to and understand:

Types of bespoke information:

- ***Information will vary according to the software for example:***
  - ***text, numbers, photos, scanned images, graphic elements, digital recorded sound, graphs, charts, tables***

Inputting information:

- ***Inputting tools and techniques will vary according to the technology being used for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***

Combining information techniques:

- ***Insert, size, position, wrap, order, group***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format; compliance, audit and reporting requirements***
- ***File management will vary according to the application***

Outcome 2 Use tools and techniques to edit, process, format and present information

The learner should be able to and understand:

Editing, analysis and formatting techniques:
Techniques will vary according to the software and task, for example:

- ***Editing: select, insert, delete, cut, copy, paste, drag and drop, find, replace, page layout, labelling, alignment, orientation, colour, resolution, size, pitch***
  - ***Process: sort, pre-set queries, simple operator formulas, charts and graphs***
  - ***Formatting: characters, lines, paragraphs, pages, file type***

Check bespoke information:

- ***Checks will vary according to the type of information and software, but could include:***
  - ***spell check, grammar check***
  - ***accuracy of figures***
  - ***labelling and size of images***
  - ***volume of sound***

Presentation methods:

- ***Methods will vary according to the software and task, for example:***

- *on screen display, publishing on a web site, hard copy print out, digital file*
- *organisational house style, branding*

Unit 117 Computerised accounting software

Level: *1*
Credit value: *2*

Unit aims
This is the ability to select and use a computerised accounting or bookkeeping software application to input and process data for orders and invoices, receipts and payments and prepare management and period end reports.

On completion of this unit a candidate should be able to use basic accounting software tools and techniques appropriately for straightforward or routine information.

Accounting software tools and techniques will be defined as 'basic' because:

- ***the software tools and functions involved will be predefined or commonly used***
- ***the range of inputting, manipulation and outputting techniques are straightforward or routine;***
- ***the document type and structure will be predetermined or familiar.***

Examples of context: Entering sales orders into an existing system; preparing and printing customer invoices.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Access, enter and edit accounting information***
2. ***Use tools and techniques to process business transactions***
3. ***Produce accounting documents and summary reports to meet requirements***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 117 Computerised accounting software
Learning outcomes and assessment criteria

Outcome 1 Access, enter and edit accounting information

The learner can:

1. *Identify the sources and characteristics of accounting data*
2. *Enter accounting data accurately into records to meet requirements*
3. *Locate and display accounting data records to meet requirements*
4. *Check data records meet needs using IT tools, making corrections as necessary*
5. *Follow local and/or legal guidelines for the storage and use of data*
6. *Identify the risks to data security and procedures used for data protection*

Outcome 2 Use tools and techniques to process business transactions

The learner can:

1. *Use appropriate tools and techniques to process transactions*
2. *Review the transaction process and identify any errors*
3. *Respond appropriately to any transaction errors and problems*

Outcome 3 Produce accounting documents and summary reports to meet requirements

The learner can:

1. *Identify what information is required and how to present it*
2. *Generate accounting documents as required*
3. *Generate management reports as required*

Teaching 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.

Outcome 1 Access, enter and edit accounting information

The learner should be able to and understand:

Characteristics of accounting data:

- ***Unique references***
- ***Codes; statutory requirements***
- ***Editing restrictions***

Enter accounting data:

- ***Use of data entry form and wizards***
- ***Add/amend record (sales/purchase order; invoice)***

Locate and display:

- ***Search, sort, filter***
- ***Print records***

Check data:

- ***Spell check, format, consistency, accuracy, remove duplication, verify data***
- ***Edit details***
- ***Check calculations, check coding***

Security risks and procedures:

- ***Access control***
- ***Authorised use, confidentiality, protection of personal data, password protection and management, user authentication***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection, guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application***

Outcome 2 Use tools and techniques to process business transactions

The learner should be able to and understand:

Process transactions:

Types of transactions:

-post invoice, receipts, payments, journal entries

-number of items: single items, batches

-from: bank statement, cheque book, paying-in book

Transaction errors and problems:

- ***Using help***
- ***Duplication, limits of own responsibility, process for reporting errors and problems***

Outcome 3 Produce accounting documents and summary reports to meet requirements

The learner should be able to and understand:

Accounting documents:
Will vary according to task, but may include for example:

- ***invoice, sales order, purchase order, statement***
- ***To screen, printed, for e-mail***

Management reports:
Will vary according to task, but may include for example:

- ***audit trail, customer activity; day book, aged debtor, aged creditor***

Unit 118 Data management software

Level: *1*
Credit value: *2*

Unit aim
This is the ability to use a software application designed to store and retrieve data needed for a variety of business functions. It also includes an understanding of the features and facilities of the software and the purpose for which the data is stored.

On completion of this unit a candidate should be able to use basic data management software tools and techniques to:

- ***enter straightforward or routine information using pre-set data-entry screens;***
- ***retrieve information by running predefined methods; and***
- ***produce reports using predefined menus or short cuts.***

The tools and techniques will be described as 'basic' because the:

- ***tools and functions will be predefined or commonly used; and***
- ***techniques for inputting, manipulation and outputting data will be straightforward or routine.***

The structure and functionality of the data management system will be predefined.

Examples of context: Adding or amending customer details into a company CRM system such as Integra; booking patient appointments for doctor, dentist or hospital; registering new student details onto a school or college SIMS database

Learning outcomes
There are two learning outcomes to this unit.

The learner will:

1. ***Enter, edit and maintain data records in a data management system***
2. ***Retrieve and display data records to meet requirements***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 118 Data management software
Learning outcomes and assessment criteria

Outcome 1 Enter, edit and maintain data records in a data management system

The learner can:

1. ***Identify the security procedures used to protect data***
2. ***Enter data accurately into records to meet requirements***
3. ***Locate and amend individual data records***
4. ***Check data records meet needs, using IT tools and making corrections as necessary***
5. ***Respond appropriately to data entry error messages***
6. ***Follow local and/or legal guidelines for the storage and use of data where available***

Outcome 2 Retrieve and display data records to meet requirements

The learner can:

1. ***Search for and retrieve information using pre-defined methods to meet given requirements***
2. ***Identify which report to run to output the required information***
3. ***Select and view specified reports to output information to meet given requirements***

Teaching 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.

Outcome 1 Enter, edit and maintain data records in a data management system
The learner should be able to and understand:

Enter data:

- ***Use of data entry form, create new record, add record to table***

Amend data records:

- ***Find, search and replace***
- ***Edit record, sort, use wildcards***

Check data records:

- ***Spell check, format, accuracy, consistency, remove duplication, verify data***

Security procedures:

- ***Access control***
- ***Authorised use, password protection and management, user authentication***

Error messages:

- ***Due to field size, data type, validation checks***
- ***Duplicate records***
- ***Format***
- ***Using help***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application.***

Outcome 2 Retrieve and display data records to meet requirements
The learner should be able to and understand:

Search and retrieve:

- ***Alphanumeric sort, filter, single criteria, standard queries***

Reports:

- ***Accessing reports that have already been run***
- ***Using menus or shortcuts, report templates to produce standard reports based on current data***

Unit 119 Database software

Level: *1*
Credit value: *3*

Unit aim
This is the ability to use a software application designed to organise and store structured information and generate reports.

On completion of this unit a candidate should be able to use basic database software tools and techniques to:

- ***enter straightforward or routine information into a database;***
- ***set up a single table in a flat file database;***
- ***retrieve information by running routine queries; and***
- ***produce reports using predefined menus or short cuts.***

The structure and functionality of the database will be predefined. Any aspects that are unfamiliar will require support and advice from others.

Database tools and techniques will be described as 'basic' because the:

- ***tools and functions will be predefined or commonly used; and***
- ***techniques for inputting, manipulation and outputting will be straightforward or routine.***

Examples of context: Enter names and addresses into a customer database; update stock control data.

Learning outcomes
There are two learning outcomes to this unit.

The learner will:

1. ***Enter, edit and organise structured information in a database***
2. ***Use database software tools to extract information and produce reports***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 119 Database software
Learning outcomes and assessment criteria

Outcome 1 Enter, edit and organise structured information in a database

The learner can:

1. ***Identify the main components of a database***
2. ***Create a database table for a purpose using specified fields***
3. ***Enter structured data into records to meet requirements***
4. ***Locate and amend data records***
5. ***Respond appropriately to data entry error messages***
6. ***Check data meets needs, using IT tools and making corrections as necessary***

Outcome 2 Use database software tools to extract information and produce reports

The learner can:

1. ***Identify queries which meet information requirements***
2. ***Run simple database queries***
3. ***Identify reports which meet information requirements***
4. ***Generate and print pre-defined database reports***

Teaching 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.

Outcome 1 Enter, edit and organise structured information in a database

The learner should be able to and understand:

Database components:

- ***What types of information are stored:***
  - ***tables, forms, queries, reports***

Enter structured data:

- ***Tables, fields, records***
- ***Use of data entry form, create new record, add record to table***

Locate and amend:

- ***Find, search and replace***
- ***Sort***
- ***Wildcards***

Data entry errors:

- ***Due to field size, data type, validation checks***
- ***Using help***

Check data:

- ***Spell check, format, accuracy, consistency***

Outcome 2 Use database software tools to extract information and produce reports

The learner should be able to and understand:

Database queries:

- ***Alphanumeric sort, filter, single criteria***

Database reports:

- ***Using menus, wizards or shortcuts***

Unit 120 Design software

Level: *1*
Credit value: *3*

Unit aims

This is the ability to use a software application designed to create, modify and layout artwork for display in print or on a screen (eg vector graphics for design and drawing; raster graphics for photo manipulation or illustration).

On completion of this unit a candidate should be able to use basic design software tools and techniques appropriately to produce straightforward or routine designs.

Design and imaging software tools and techniques will be defined as 'basic' because:

- ***the range of inputting, manipulation and outputting techniques will be straightforward or routine;***
- ***the software tools and functions involved will be predefined or commonly used;***
- ***the type and structure of the task will be predetermined or familiar.***

Examples of context: simple shapes, text and arrows, clip art or a picture from a digital camera for a presentation slide.

Learning outcomes

There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Obtain, insert and combine information for designs***
2. ***Use design software tools to create, manipulate and edit designs***

Guided learning hours

It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 120 Design software
Learning outcomes and assessment criteria

Outcome 1 Obtain, insert and combine information for designs

The learner can:

1. *Identify what designs are needed*
2. *Obtain, input and prepare designs to meet needs*
3. *Identify what generic copyright and other constraints apply to the use of designs*
4. *Combine information of different types or from different sources for designs*
5. *Identify the context in which the designs will be used*
6. *Identify which file format to use for saving and exchanging designs*
7. *Store and retrieve files effectively, in line with local guidelines and conventions where available*

Outcome 2 Use design software tools to create, manipulate and edit designs

The learner can:

1. *Use suitable tools and techniques to create designs*
2. *Use appropriate tools and techniques to manipulate and edit designs*
3. *Check designs meets needs, using IT tools and making corrections as necessary*

Teaching 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.

Outcome 1 Obtain, insert and combine information for designs

The learner should be able to and understand:

Designs:

- ***Designs 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 (eg on use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Combine information:

- ***Insert, size, position, wrap, order, group***

Context for designs:

- ***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 designs:

- ***Will vary according to the content, proprietary and open source formats***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Use design software tools to create, manipulate and edit designs

The learner should be able to and understand:

Check designs:

- ***Size, alignment and orientation,***
- ***Suitability of file format***

Create designs:

- ***Draw basic shapes***
- ***Change properties (eg line width and fill colour)***
- ***Download digital photos from a camera, scan and resize images***
- ***Add text and other elements (eg lines, boxes and arrows)***

Manipulate and editing techniques:

- ***Align, rotate, flip, arrange, cut, paste, resize***
- ***Change font, text and colour***

Unit 121 Imaging software

Level: *1*
Credit value: *3*

Unit aims

This is the ability to use a software application designed to create, modify and layout images for display in print or on a screen (eg vector graphics for design and drawing; raster graphics for photo manipulation or illustration).

On completion of this unit a candidate should be able to use basic imaging software tools and techniques appropriately to produce straightforward or routine images.

Design and imaging software tools and techniques will be defined as 'basic' because:

- ***the range of inputting, manipulation and outputting techniques will be straightforward or routine;***
- ***the software tools and functions involved will be predefined or commonly used;***
- ***the type and structure of the task will be predetermined or familiar.***

Examples of context: simple shapes, text and arrows, clip art or a picture from a digital camera for a presentation slide.

Learning outcomes

There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Obtain, insert and combine information for images***
2. ***Use imaging software tools to create, manipulate and edit images***

Guided learning hours

It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 121 Imaging software
Learning outcomes and assessment criteria

Outcome 1 Obtain, insert and combine information for images

The learner can:

1. ***Identify what images are needed***
2. ***Obtain, input and prepare images to meet needs***
3. ***Identify what generic copyright and other constraints apply to the use of images***
4. ***Combine information of different types or from different sources for images***
5. ***Identify the context in which the images will be used***
6. ***Identify which file format to use for saving and exchanging images***
7. ***Store and retrieve files effectively, in line with local guidelines and conventions where available***

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

The learner can:

1. ***Use suitable tools and techniques to create images***
2. ***Use appropriate tools and techniques to manipulate and edit images***
3. ***Check images meets needs, using IT tools and making corrections as necessary***

Teaching 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.

Outcome 1 Obtain, insert and combine information for images

The learner should be able to and understand:

Images:

- ***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 (eg on use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Combine information:

- ***Insert, size, position, wrap, order, group***

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, proprietary and open source formats***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

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

The learner should be able to and understand:

Check images:

- ***Size, alignment and orientation,***
- ***Suitability of file format***

Create images:

- ***Draw basic shapes***
- ***Change properties (eg line width and fill colour)***
- ***Download digital photos from a camera, scan and resize images***
- ***Add text and other elements (eg lines, boxes and arrows)***

Manipulate and editing techniques:

- ***Align, rotate, flip, arrange, cut, paste, resize***
- ***Change font, text and colour***

Unit 122 Desktop publishing software

Level: *1*
Credit value: *3*

Unit aims
This is the ability to use desktop publishing software designed to combine and manipulate text, image and graphic elements in layouts appropriate for subsequent publication to screen or print.

On completion of this unit a candidate should be able to use a range of basic desktop publishing software tools and techniques to produce straightforward or routine publications.

Publication tools and techniques will be described as 'basic' because:

- ***the software tools and functions will be predefined or commonly used;***
- ***the range of entry, manipulation and outputting techniques will be straightforward or routine;***
- ***the inputting, manipulating and outputting of the information will be predetermined, straightforward or routine.***

Examples of context: Typical documents may include – invitation, poster, menu, greetings card, business card.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Select and use appropriate designs and page layouts for publications***
2. ***Input and combine text and other information within publications***
3. ***Use desktop publishing software techniques to edit and format publications***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 122 Desktop publishing software
Learning outcomes and assessment criteria

Outcome 1 Select and use appropriate designs and page layouts for publications

The learner can:

1. ***Identify what types of information are needed***
2. ***Identify what page design and layout will be required***
3. ***Select and use an appropriate page design and layout for publications in line with local guidelines, where relevant***
4. ***Select and use appropriate media for the publication***

Outcome 2 Input and combine text and other information within publications

The learner can:

1. ***Input information into publications so that it is ready for editing and formatting***
2. ***Identify copyright constraints on using others' information***
3. ***Organise and combine information of different types or from different sources in line with any copyright constraints***
4. ***Store and retrieve publication files effectively, in line with local guidelines and conventions where available***

Outcome 3 Use desktop publishing software techniques to edit and format publications

The learner can:

1. ***Identify what editing and formatting to use for the publication***
2. ***Select and use appropriate techniques to edit publications and format text***
3. ***Manipulate images and graphic elements accurately***
4. ***Control text flow within single and multiple columns and pages***
5. ***Check publications meet needs, using IT tools and making corrections as necessary***

Teaching 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.

Outcome 1 Select and use appropriate designs and page layouts for publications

The learner should be able to and understand:

Types of information:
- ***Text, images, graphics, video, sound***

Page design and layout:
- ***Organisation of information, size, white space, columns, consistency, orientation***

Local guidelines:
- ***Templates, house style, branding, publication guidelines, styles, colours and font schemes***

Publication media:
- ***Web, document, multimedia***

Outcome 2 Input and combine text and other information within publications

The learner should be able to and understand:

Input information:
- ***Using keyboard, mouse, scanner, voice recognition, touch screen, stylus***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Combine presentation information:
- ***Insert, size, position, wrap, order, group***
- ***Forms: images, text, graphic elements (eg borders, lines, panels, shading, logos)***

Store and retrieve:
- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 3 Use desktop publishing software techniques to edit and format publications

The learner should be able to and understand:

Edit publications:

- ***Drag and drop, find, replace, undo redo, size, crop and position***
- ***Use layout guides***

Format text:

- ***Existing styles and schemes for font (typeface), size, orientation, colour, alignment***

Manipulate images and graphic elements:

- ***Size, crop, position, maintain proportion, border***

Control text flow:

- ***In columns, around images and graphic elements, between pages***

Check publications:

- ***Spell check, grammar check, word count***
- ***Completeness, accuracy, orientation, layout, text alignment and formatting***

Unit 123 Drawing and planning software

Level: *1*
Credit value: *2*

Unit aims
This is the ability to use software designed for producing 2D drawings or plans, such as flowcharts, mindmaps and technical drawings.

On completion of this unit a candidate should be able to select and use basic tools and techniques to produce straightforward or routine drawings and plans. Any aspects that are unfamiliar will require support and advice.

2D drawing and planning software tools and techniques will be described as 'basic' because:

- ***the software tools and functions will be predefined or commonly used;***
- ***the range of entry, manipulation and outputting techniques will be straightforward or routine;***
- ***the inputting, manipulating and outputting of the information will be predetermined, straightforward or routine.***

Examples of context: A plan of an office or garden layout, a mind map of key points discussed in a meeting

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Input, organise and combine information for drawings or plans***
2. ***Use tools and techniques to edit, manipulate, format and present drawings or plans***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 123 Drawing and planning software
Learning outcomes and assessment criteria

Outcome 1 Input, organise and combine information for drawings or plans

The learner can:

1. *Identify what types of 2D shapes and other elements will be needed*
2. *Identify which template or blank document to use*
3. *Select the appropriate shapes, from those available, to meet needs*
4. *Input the relevant shapes and other elements into existing templates or blank documents so that they are ready for editing and formatting*
5. *Identify what copyright constraints apply to the use of shapes or other elements*
6. *Combine information of different types or from different sources for drawings and plans*
7. *Store and retrieve drawing files effectively, in line with local guidelines and conventions where available*

Outcome 2 Use tools and techniques to edit, manipulate, format and present drawings or plans

The learner can:

1. *Identify what drafting guides to use so that the shapes and other elements are appropriately prepared*
2. *Use appropriate software tools to manipulate and edit shapes and other elements*
3. *Select and use appropriate software tools to format shapes and other elements*
4. *Check drawings and plans meet needs, using IT tools and making corrections as necessary*
5. *Use appropriate presentation methods and accepted page layouts*

Teaching 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.

Outcome 1 Input, organise and combine information for drawings or plans

The learner should be able to and understand:

Browser tools:

Shapes and other elements:

Shapes will vary according to the required outcome, for example:
-flow chart shapes, building plan shapes, audit

Other elements:

- ***Graphic elements (eg lines, arrows, borders, backgrounds, clip art), text, numbers***

Input information:

Inputting tools and techniques will vary according to the technology being used, for example:

- ***interface devices (eg keyboard, mouse, stylus, touch screen)***
- ***microphone (eg headset, built-in)***
- ***camera (eg web cam, video camera, mobile phone camera)***

Templates and blank documents:

- ***Blank documents; existing templates, working from an example document***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Combine information:

- ***Insert, size, position, wrap, order, group***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Use tools and techniques to edit, manipulate, format and present drawings or plans

The learner should be able to and understand:

Drafting guides:

- ***Grid, snap to grid, snap to shape***

Manipulate and edit shapes and other elements:

- ***Will vary, for example:***
  - ***Edit: select, insert, delete, cut, copy, paste, drag and drop***
  - ***Find, replace***
  - ***Text: font, colour, alignment***
  - ***Shapes: size, colour, orientation, connections to other shapes and elements, add labels***

Format shapes and other elements:

- *Will vary, for example:*
  - *text (eg font, paragraphs, text block, tabs, bullets)*
  - *lines (eg width, length, colour, endings, beginnings)*
  - *drawing elements (eg fill, shadow, corners)*
  - *connections between shapes and other elements*

Outcome 2 *Use tools and techniques to edit, manipulate, format and present drawings or plans*

Check drawings and plans:

- *Spell check, grammar check*
- *Accuracy of numbers*
- *Labelling and size of shapes*
- *Connections between shapes and other elements*

Presentation methods:

Will vary according to the task, for example:

- *on screen display, publishing on a web site, hard copy print out, digital file*
- *organisational house style, branding*

Unit 124 Multimedia software

Level: *1*
Credit value: *3*

Unit aims
This is the ability to use multimedia software designed to combine, manipulate and animate a variety of objects and data types in layouts appropriate for subsequent production to screen. In general, multimedia includes a combination of text, audio, still images, animation, video, and interactive content.

On completion of this unit a candidate should be able to use a range of basic multimedia tools and techniques to produce straightforward or routine publications.

Publication tools and techniques will be described as 'basic' because:

- ***the software tools and functions will be predefined or commonly used;***
- ***the range of entry, manipulation and outputting techniques will be straightforward or routine;***
- ***the inputting, manipulating and outputting of the information will be predetermined, straightforward or routine.***

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Plan the content and organisation of multimedia products to meet needs***
2. ***Obtain, input and combine content to build multimedia outcomes***
3. ***Use multimedia software tools to edit and format multimedia content to meet requirements***
4. ***Play and present multimedia outcomes***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***

- ***scenario***

Unit 124 Multimedia software
Learning outcomes and assessment criteria

Outcome 1 Plan the content and organisation of multimedia products to meet needs

The learner can:

1. *Use simple techniques to plan the content and organisation of multimedia products*
2. *Identify the type of multimedia outcome to meet requirements*
3. *Identify what is required in the specification*
4. *Identify copyright or other constraints for using others' information*

Outcome 2 Obtain, input and combine content to build multimedia outcomes

The learner can:

1. *Select and use an appropriate input device to enter content for multimedia outcomes*
2. *Combine information of different types or from different sources for multimedia outcomes*
3. *Identify the file format and storage media to use*
4. *Select and use appropriate software to write multimedia files*
5. *Store and retrieve multimedia files effectively, in line with local guidelines and conventions where available*

Outcome 3 Use multimedia software tools to edit and format multimedia content to meet requirements

The learner can:

1. *Select and use appropriate techniques to edit and format multimedia outcomes*
2. *Manipulate images and graphic elements accurately*
3. *Check multimedia outcomes meet needs, using IT tools and making corrections as necessary*

Outcome 4 Play and present multimedia outcomes

The learner can:

1. *Identify what display device to use for multimedia outcomes*
2. *Use appropriate techniques to navigate and display multimedia outcomes*
3. *Control the playback of multimedia files*
4. *Adjust display settings to meet needs*

Teaching 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.

Outcome 1 Plan the content and organisation of multimedia products to meet needs

The learner should be able to and understand:

Plan and communicate:
- ***Flow chart, storyboard, sketches***

Multimedia outcome:
- ***Website, CD ROM, animation sequence, presentation***

Specification:
- ***No of pages, features, audience, types of content***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Outcome 2 Obtain, input and combine content to build multimedia outcomes

The learner should be able to and understand:

Input device:
- ***Keyboard skills, keyboard shortcuts, mouse***
- ***Other input methods: voice recognition, touch screen, stylus, digital video or still camera, Dictaphone, microphone***

Combine information:
- ***Insert, size, position, wrap, order, group***

File format for multimedia outcomes:
- ***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)***

Store and retrieve:
- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 3 Use multimedia software tools to edit and format multimedia content to meet requirements

The learner should be able to and understand:

Edit multimedia outcomes:
- ***Size, crop and position objects***
- ***Use layout guides***

Manipulate images and graphic elements:
- ***Size, crop, position, maintain proportion, border***

Styles, colours and font schemes:
- ***Existing styles and schemes***

Check multimedia outcomes:
- ***Completeness, accuracy, layout, formatting, animation, sound, sequence***
- ***Review against requirements***

Outcome 4 Play and present multimedia outcomes

The learner should be able to and understand:

Navigation techniques:
- ***Click, scroll, menus, submenus***

Display of multimedia outcomes:
- ***Thumbnail, quarter screen, full screen***

Playback controls:
- ***Start, stop, fast forward, rewind, pause***

Display settings:
- ***Visual: brightness, contrast***
- ***Sound: volume, balance***

Unit 125 Presentation software

Level: *1*
Credit value: *3*

Unit aim
This is the ability to use software applications to produce effective presentations, which include a combination of media (eg images, animation and sound) for education, entertainment or information sharing.

On completion of this unit a candidate should be able to use a range of basic presentation software tools and techniques to produce straightforward or routine presentations.

Presentation tools and techniques will be described as 'basic' because the:

- ***software tools and functions will be predefined or commonly used;***
- ***range of entry, manipulation and outputting techniques will be straightforward or routine; and***
- ***inputting, manipulating and outputting of the information will be predetermined, straightforward or routine.***

Examples of context: Text-based or diagram-based slide shows and lecture notes.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Input and combine text and other information within presentation slides***
2. ***Use presentation software tools to structure, edit and format slides***
3. ***Prepare slides for presentation to meet needs***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 125 Presentation software
Learning outcomes and assessment criteria

Outcome 1 Input and combine text and other information within presentation slides

The learner can:

1. ***Identify what types of information are required for the presentation***
2. ***Select and use different slide layouts as appropriate for different types of information***
3. ***Enter information into presentation slides so that it is ready for editing and formatting***
4. ***Identify any constraints which may affect the presentation***
5. ***Combine information of different forms or from different sources for presentations***
6. ***Store and retrieve presentation files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use presentation software tools to structure, edit and format slides

The learner can:

1. ***Identify what slide structure to use***
2. ***Select and use an appropriate template to structure slides***
3. ***Select and use appropriate techniques to edit slides***
4. ***Select and use appropriate techniques to format slides***

Outcome 3 Prepare slides for presentation to meet needs

The learner can:

1. ***Identify how to present slides to meet needs and communicate effectively***
2. ***Prepare slides for presentation***
3. ***Check presentation meets needs, using IT tools and making corrections as necessary***

Teaching 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.

Outcome 1 Input and combine text and other information within presentation slides

The learner should be able to and understand:

Types of information:

- ***Text, numbers, images, graphics, sound***

Constraints:

- ***On content: copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism***
- ***Equal opportunities, other local guidelines***

Combine information for presentations:

- ***Combine images, charts or tables with text by inserting, re-sizing and positioning***
- ***Use of text boxes***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Use presentation software tools to structure, edit and format slides

The learner should be able to and understand:

Slide structure:

- ***Layout***
- ***Use existing templates, designs and styles***
- ***Organisational guidelines***

Edit slides:

- ***Drag and drop, find, replace, undo/redo, size, crop and position objects***
- ***Wrap text, add lines and simple shapes***

Format slides:

- ***Bullets, numbering, line spacing, alignment, colour, fonts, size, backgrounds***

Outcome 3 Prepare slides for presentation to meet needs

The learner should be able to and understand:

Present slides:

Timing, content, meaning

- ***Organisation of information***
- ***Audience needs***

Prepare slides:

- ***View, re-order, rehearse timing, print slides, print handouts***
- ***Speaker notes***

Check presentation:

- ***Spell check, grammar check, orientation, layout, slide order, text alignment and formatting, accuracy***

Unit 126 Project management software

Level: *1*
Credit value: *3*

Unit aims
This is the ability to use a software application that plans, organises and monitors completion of the component tasks within a project in logical sequence, given constraints of people and resource availability. This is not about managing a project although these standards may also be applicable to the project manager.

On completion of this unit a candidate should be able to use a range of basic project management software tools and techniques to input and edit straightforward or routine information about projects. Any aspect that is unfamiliar will require support and advice from others.

Project management tools and techniques will be described as 'basic' because:

- ***the software tools and functions will be predefined in templates or commonly used;***
- ***the range of entry, manipulation and outputting techniques will be straightforward or routine;***
- ***the inputting, manipulating and outputting of the information is in response to prompts and is directed by the project manager.***

Examples of context: Updating project calendar with staff holiday information; editing tasks to update status during project progress

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Create and define a project***
2. ***Enter and edit information about project tasks and resources***
3. ***Update information about project progress***
4. ***Select and use appropriate tools and techniques to display and report on project status***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***

- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 126 Project management software
Learning outcomes and assessment criteria

Outcome 1 Create and define a project

The learner can:

1. ***Identify the main components of the project management software***
2. ***Identify the information about the project that must be included***
3. ***Create a new project file using templates where appropriate***
4. ***Store and retrieve project management files effectively in line with local guidelines for storage and use of data where applicable***

Outcome 2 Enter and edit information about project tasks and resources

The learner can:

1. ***Identify types of tasks, milestones, deadlines and constraints***
2. ***Enter and edit information about project tasks***
3. ***Identify time and resources required for the project***
4. ***Apply a task calendar for scheduling tasks***
5. ***Enter and edit information about resources for use in the project***
6. ***Mark any dependencies between tasks***
7. ***Assign resources to tasks***

Outcome 3 Update information about project progress

The learner can:

1. ***Use editing and formatting techniques to update project elements***
2. ***Update task status in line with progress***
3. ***Update information about resources as required***

Outcome 4 Select and use appropriate tools and techniques to display and report on project status

The learner can:

1. ***Update information about resources as required***
2. ***Select and generate project reports using pre-defined formats to meet needs***

Teaching 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.

Outcome 1 Create and define a project

The learner should be able to and understand:

Project information:

- ***Tasks, timescales, resources, stages***
- ***Source of information: provided by the person responsible for the project***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Enter and edit information about project tasks and resources

The learner should be able to and understand:

Task types:

- ***Fixed cost, fixed duration, fixed work***

Task information:

- ***Duration, status, set reminders***

Task calendar:

- ***Working-time calendar, holidays***

Project resources:

- ***People, time, costs, equipment***

Outcome 3 Update information about project progress

The learner should be able to and understand:

Editing techniques:

- ***Editing techniques appropriate to the type of information, for example:***
  - ***select, copy, cut, paste, undo, redo, drag and drop, find, replace, insert, delete, size, crop, position***

Tasks status:

- ***Complete, in progress, not yet started***

Outcome 4 Select and use appropriate tools and techniques to display and report on project status

The learner should be able to and understand:

Project reports:

- ***Task progress, project progress, resource allocation and usage, costs***

Display project information:

- ***Task lists, resource assignment***

Unit 127 Spreadsheet software

Level: *1*
Credit value: *3*

Unit aim
On completion of this unit a candidate should be able to use a range of basic spreadsheet software tools and techniques to produce, present and check spreadsheets that are straightforward or routine. Any aspect that is unfamiliar will require support and advice from others.

Spreadsheet software tools and techniques will be defined as 'basic' because the:
- ***range of data entry, manipulation, formatting and outputting techniques are straightforward;***
- ***tools, formulas and functions involved will be predetermined or commonly used (for example, sum, divide, multiply, take away and fractions); and***
- ***structure and functionality of the spreadsheet will be predetermined or familiar.***

Examples of context: Typical examples may include - a duty rota for staff or a work sheet for keeping track of expenses.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:
1. ***Use a spreadsheet to enter, edit and organise numerical and other data***
2. ***Use appropriate formulas and tools to summarise and display spreadsheet information***
3. ***Select and use appropriate tools and techniques to present spreadsheet information effectively***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 127 Spreadsheet software
Learning outcomes and assessment criteria

Outcome 1 Use a spreadsheet to enter, edit and organise numerical and other data

The learner can:

1. ***Identify what numerical and other information is needed and how the spreadsheet should be structured to meet needs***
2. ***Enter and edit numerical and other data accurately***
3. ***Store and retrieve spreadsheet files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use appropriate formulas and tools to summarise and display spreadsheet information

The learner can:

1. ***Identify how to summarise and display the required information***
2. ***Use functions and formulas to meet calculation requirements***
3. ***Use spreadsheet tools and techniques to summarise and display information***

Outcome 3 Select and use appropriate tools and techniques to present spreadsheet information effectively

The learner can:

1. ***Select and use appropriate tools and techniques to format spreadsheet cells, rows and columns***
2. ***Identify which chart or graph type to use to display information***
3. ***Select and use appropriate tools and techniques to generate, develop and format charts and graphs***
4. ***Select and use appropriate page layout to present and print spreadsheet information***
5. ***Check information meets needs, using spreadsheet tools and making corrections as necessary***

Teaching 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.

Outcome 1 Use a spreadsheet to enter, edit and organise numerical and other data

The learner should be able to and understand:

Browser tools:

- ***Enter, back, forward, refresh, history, bookmark, new window, new tab***
- ***Numerical and other information:***
- ***Numbers, charts, graphs, text***

Spreadsheet structure:

- ***Spreadsheet components (eg cells, rows, columns, tabs, pages, charts) and their layout***

Enter and edit:

- ***Enter data into existing spreadsheet, create new spreadsheet, insert information into single cells, clear cells, edit cell contents, replicate data, find and replace, add and delete rows and columns***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Use appropriate formulas and tools to summarise and display spreadsheet information

The learner should be able to and understand:

Summarise and interpret:

- ***Totals and summary information***
- ***Sorting and display order***
- ***Lists, tables, graphs and charts***
- ***Judgment of when and how to use these methods***

Functions and formulas:

- ***Simple arithmetic formulas (add, subtract, multiply, divide), common functions (eg Sum, Average, Round)***
- ***Design of formulas to meet calculation requirements***

Outcome 3 Select and use appropriate tools and techniques to present spreadsheet information effectively

The learner should be able to and understand:

Format cells:

- ***Numbers, currency, percentages, number of decimal places, font and alignment, borders and shading***

Format rows and columns:

- ***Height, width, borders and shading***

Format charts and graphs:

- *Chart type (eg pie chart, bar chart, single line graph), title, axis titles, legend*

Page layout:

- *Size, orientation, margins, page numbers, date and time*

Check spreadsheet information:

- *Accuracy of numbers, formulas and any text*
- *Accuracy of results*
- *Suitability of charts and graphs*

Unit 128 Website software

Level: *1*
Credit value: *3*

Unit aim
This is the ability to use a software application designed for planning, designing and building websites.

On completion of this unit a candidate should be able to use basic website software tools and techniques appropriately to produce straightforward or routine single web pages from pre-set templates.

Website software tools and techniques will be defined as 'basic' because the:
- ***software tools and functions involved will be predefined or commonly used;***
- ***range of inputting, manipulation and outputting techniques are straightforward or routine; and***
- ***template used for the content will be predetermined or familiar.***

Examples of context: Personal webpage or blog created in social networking, learning or auction site; information pages created within web or content management system.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Plan and create web pages***
2. ***Use website software tools to structure and format web pages***
3. ***Publish web pages to the Internet or an intranet***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 128 Website software
Learning outcomes and assessment criteria

Outcome 1 Plan and create web pages

The learner can:

1. ***Identify what content and layout will be needed in the web page***
2. ***Identify the purpose of the webpage and intended audience***
3. ***Select and use a website design template to create a single web page***
4. ***Enter or insert content for web pages so that it is ready for editing and formatting***
5. ***Organise and combine information needed for web pages***
6. ***Identify copyright and other constraints on using others' information***
7. ***Identify what file types to use for saving content***
8. ***Store and retrieve web files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use website software tools to structure and format web pages

The learner can:

1. ***Identify what editing and formatting to use to aid both clarity and navigation***
2. ***Select and use website features to help the user navigate simple websites***
3. ***Use appropriate editing and formatting techniques***
4. ***Check web pages meet needs, using IT tools and making corrections as necessary***

Outcome 3 Publish web pages to the Internet or an intranet

The learner can:

1. ***Upload content to a website***
2. ***Respond appropriately to common problems when testing a web page***

Teaching 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.

Outcome 1 Plan and create web pages

The learner should be able to and understand:

Content and layout:

- ***Web page content and layout will vary according to the template, but may include:***
  - ***text (eg body text, headings, captions)***
  - ***images (eg still photographs, diagrams)***
  - ***numbers (eg tables, charts or graphs)***
  - ***background (eg colours, gradients, patterns, textures)***

Web site templates:

- ***Design lay out will vary according to the template, but may include:***
  - ***text (eg body text, headings, captions)***
  - ***images (eg still photographs, diagrams)***
  - ***numbers (eg tables, charts or graphs)***
  - ***background (eg colours, gradients, patterns, textures)***

Combine information:

- ***Combine images with text (eg photo captions)***
- ***Presentation with audio and/or video***
- ***Numbers with charts and graphs***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

File types:

- ***Text (eg rtf, doc, pdf)***
- ***Images (eg jpeg, tiff, psd)***
- ***Charts and graphs (eg xls)***
- ***Sound (eg wav, MP3)***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Use website software tools to structure and format web pages

The learner should be able to and understand:

Website features:

- ***Web page features will vary, but may include:***
- ***navigation (eg action buttons, links, hot spots)***

Editing techniques:

- ***Editing techniques will vary in line with the type of information, for example:***
- ***select, copy, cut, paste, undo, redo, drag and drop, find, replace, size, crop, position***

Check web pages:

- *Spell check, grammar check, word count; image size, alignment and orientation*
- *Suitability of file format*

Outcome 3 Publish web pages to the Internet or an intranet

The learner should be able to and understand:

Upload and publish website:

- *Upload content to a template*

Website testing:

- *View web page using browser software*

Problems with websites:

- *Problems may vary, but could include:*
  - *content that is not appropriate for the template or missing text that is not readable or missing*
  - *images that are oriented or sized wrongly*

Unit 129 Word processing software

Level: *1*
Credit value: *3*

Unit aim
This is the ability to use a software application designed for the creation, editing and production of largely text-based documents.

On completion of this unit a candidate should be able to use a range of basic word processing software tools and techniques to produce appropriate, straightforward or routine documents. Any aspect that is unfamiliar will require support and advice from others.

Word processing tools and techniques will be described as 'basic' because the:
- ***software tools and functions will be predetermined or commonly used; and***
- ***techniques needed for text entry, manipulation and outputting will be straightforward or routine.***

Learning outcomes
There are three learning outcomes to this unit.

The learner will:
1. ***Enter, edit and combine text and other information accurately within word processing documents***
2. ***Structure information within word processing documents***
3. ***Use word processing software tools to format and present documents***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 129 Word processing software
Learning outcomes and assessment criteria

Outcome 1 Enter, edit and combine text and other information accurately within word processing documents

The learner can:

1. ***Identify what types of information are needed in documents***
2. ***Identify what templates are available and when to use them***
3. ***Use keyboard or other input method to enter or insert text and other information***
4. ***Combine information of different types or from different sources into a document***
5. ***Enter information into existing tables, forms and templates***
6. ***Use editing tools to amend document content***
7. ***Store and retrieve document files effectively, in line with local guidelines and conventions where available***

Outcome 2 Structure information within word processing documents

The learner can:

1. ***Create and modify tables to organise tabular or numeric information***
2. ***Select and apply heading styles to text***

Outcome 3 Use word processing software tools to format and present documents

The learner can:

1. ***Identify what formatting to use to enhance presentation of the document***
2. ***Select and use appropriate techniques to format characters and paragraphs***
3. ***Select and use appropriate page layout to present and print documents***
4. ***Check documents meet needs, using IT tools and making corrections as necessary***

Teaching 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.

Outcome 1 Enter, edit and combine text and other information accurately within word processing documents

The learner should be able to and understand:

Types of information:

- ***Text, numbers, images, other graphic elements (eg lines, borders)***

Keyboard or other input method:

- ***Keyboard skills: using the full range of keys, typing accurately and efficiently, keyboard shortcuts***
- ***Other input methods: voice recognition, touch screen, stylus***

Editing tools:

- ***Editing tools appropriate to the type of information, for example:***
  - ***select, copy, cut, paste, undo, redo, drag and drop, find, replace, insert, delete, size, crop, position***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***

Outcome 2 Structure information within word processing documents

The learner should be able to and understand:

Tables:

- ***Add table, insert and delete rows and columns, adjust column width***

Outcome 3 Use word processing software tools to format and present documents

The learner should be able to and understand:

Format characters:

- ***Size, font style (typeface), colour, bold, underline and italic***

Format paragraphs:

- ***Alignment, bullets, numbering, line spacing, borders, shading***

Page layout:

- ***Size, orientation, margins, page breaks, page numbering***
- ***Standard document layouts (eg letter, memo)***

Check word processed documents:

- ***Spell check, grammar check***
- ***Typeface and size***
- ***Page layout, margins, line and page breaks, tables***
- ***Print preview***

- ***Accuracy, consistency***

Unit 134 Using a computer keyboard

Level: *1*
Credit value: *1*

Unit aims

This unit is about the skills and knowledge required by the IT User to use a computer keyboard to input information accurately.

As a result of this unit, IT Users will be able to navigate and control the user interface using keyboard commands, without the aid of a mouse or other pointing device.

Learning outcomes

There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Use a keyboard to enter and edit alphanumeric information accurately***
2. ***Use a keyboard to access and navigate software applications***

Guided learning hours

It is recommended that 10 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT):

- ***IUF:FS IT user fundamentals***
- ***A1.2 Use interface features effectively to interact with IT systems***
- ***IPU: Improving productivity using IT***
- ***A2.2 Use automated routines that aid efficient processing or presentation***

Keyboard skills are also relevant within the Productivity tools and applications referenced in the NOS, for example:

- ***ISF:FS IT software fundamentals***
- ***A1.2 Select and use appropriate software applications to develop, produce and present different types of information to meet needs and solve problems***
- ***A2.2 Apply editing techniques to refine information as required***
- ***A3.1 Work accurately and proof-read, using software facilities where appropriate for the task***
- ***WP: Word processing software***
- ***A1.3 Use keyboard or other input method to enter text and other information***
- ***A3.3 Check documents meet needs, using IT tools and making corrections as necessary***

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit does not specify particular targets in terms of touch typing or typing speed. Candidates are expected to correct any keyboarding errors to achieve 100% accuracy. It will be assessed via an assignment which can be found on City & Guilds website.

Unit 134 Using a keyboard
Learning outcomes and assessment criteria

Outcome 1 Use a keyboard to enter and edit alphanumeric information accurately

1. *Input information accurately using alphanumeric, punctuation and special character keys as required*
2. *Use shift, Ctrl, Alt, num and caps lock, spacebar, tab and editing keys as appropriate*
3. *Check the accuracy of information, using he keyboard to edit and make corrections as required*

Outcome 2 Use a keyboard to access and navigate software applications

1. *Use keyboard controls to access, open and close software applications*
2. *Use navigation keys to move around software applications*
3. *Identify how function keys and keyboard short-cuts can be used within a software application to improve efficiency*

Teaching 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.

Outcome 1 Use a keyboard to enter and edit alphanumeric information accurately

The learner should be able to

- ***Understand the layout of the keys on their computer keyboard***

- ***Understand the function or effect of the different types of keys, including:***
  - ***QWERTY letter keys***
  - ***Editing keys such as Insert, Delete and Backspace***
  - ***Numeric keypad***
  - ***Function keys***
  - ***Number/punctuation keys***
  - ***Navigation keys***
  - ***Special keys such as the Windows key, Escape, Scroll lock***

- ***Use the shift and caps lock keys correctly, differentiating between them and using them appropriately for capitalisation***

- ***Use Num Lock and the numeric keypad where appropriate***

- ***Use the spacebar and tab keys appropriately for spacing and indentation***

- ***Use the Shift + arrow keys for highlighting text***

- ***Copy straightforward alphanumeric text accurately from a written or typed source, including a range of punctuation marks***

- ***Proof-read passages of text and numeric information and make any necessary corrections***

This unit does not specify particular targets in terms of touch typing or typing speed. Candidates are expected to correct any keyboarding errors to achieve 100% accuracy.

There is no requirement for the candidate to print their work or be able to save files within this unit. A holistic approach is recommended, in which the candidate practices their keyboard skills as part of the use of the computer for a particular purpose. There are also opportunities to develop good posture and keyboarding technique and underline aspects of health and safety and good practice related to keyboard use.

Outcome 2 Use a keyboard to access and navigate software applications
The learner should be able to

- ***Understand how to open, close and move between applications without the aid of their mouse or other pointing device, using for example:***
  - ***the Windows / Arrows / Enter keys to open applications***
  - ***the Alt / letters keys for menu selection***
  - ***the Alt / Tab keys for moving between files / applications***
  - ***Use the navigation keys (Home, End, Page Up, Page Down and arrow keys) to move the cursor within a selected software application, for example, to move between the cells of a spreadsheet or the text in a word processed document***

- ***Use pre-programmed function keys, for example to:***
  - ***access Help***
  - ***access the menu system***
  - ***save files***
  - ***check spelling***
  - ***Use the keyboard to move around ribbon controls, menus, dialog boxes etc as appropriate to the system and software***

- ***Understand how the Shift, Ctrl and Alt keys can be used in combination with other keys to create keyboard shortcuts, and that they may vary according to the software application being used and any customization that has been set up***

- ***Use a selection of keyboard shortcuts to improve efficiency within a particular application, for example to:***
  - ***highlight text using bold, italic or underline***
  - ***format paragraphs (alignment, spacing)***
  - ***move around or edit a document using Ctrl with navigation keys or editing keys***
  - ***work with files (open, close, save or print)***
  - ***cut, copy and paste***

At this level, the candidate is not expected to create their own keyboard shortcuts or gain a comprehensive knowledge of the pre-programmed shortcuts in their chosen application. The examples will vary according to the system and software being used.

Unit 135 Internet safety for IT users

Level: *1*
Credit value: *3*

Unit aims

This unit is about the skills and knowledge required by the IT user to work safely and responsibly online. As a result of this unit, IT users will understand the risks of working online and be able to take appropriate precautions to safeguard themselves and others.

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Understand the risks that can exist when using the Internet***
2. ***Know how to safeguard self and others when working online***
3. ***Take precautions to maintain data security***
4. ***Follow legal constraints, guidelines and procedures which apply when working online***

Guided learning hours

It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT).

Internet Safety underpins a number of Areas of Competence within the NOS for example: SIS Setting up an IT system

- ***A3.2 Identify what security precautions need to be addressed when connecting to the***
- ***internet***
- ***ITS IT Security for Users***
- ***ITS:A1 Use appropriate methods to minimise security risks to IT systems and data***
- ***ICF:FS IT Communication Fundamentals***
- ***A1.3 Recognise copyright constraints on the use of information***
- ***INT Using the Internet***
- ***INT:A5 Follow and understand the need for safety and security practices when working online***

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This will be assessed via an assignment which can be found on the City & Guilds website.

Unit 135 Internet safety for IT users
Learning outcomes and assessment criteria

Outcome 1 Understand the risks that exist when using the Internet

1. *Identify risks to user safety and privacy*
2. *Identify risks to data security*
3. *Identify risks to system performance and integrity*
4. *Outline how to minimise Internet risks*
5. *Outline factors that affect the reliability of information on websites*

Outcome 2 Know how to safeguard self and others when working online

1. *Take appropriate precautions to ensure own safety and privacy*
2. *Protect personal information online*
3. *Carry out checks on others' online identity*
4. *Describe the forms and features of cyber bullying*
5. *Identify when and how to report online safety issues*
6. *Identify where to get online help and information on e-safety*

Outcome 3 Take precautions to maintain data security

1. *Take appropriate precautions to maintain data security*
2. *Take appropriate precautions to maintain system performance and integrity*
3. *Use appropriate browser safety and security settings*
4. *Use appropriate client software safety and security settings*

Outcome 4 Follow legal constraints, guidelines and procedures which apply when working online

1. *Identify legal constraints on the uploading and downloading of software and other digital content*
2. *Identify legal constraints on online behaviour*
3. *Correctly observe guidelines and procedures for the safe use of the Internet*

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Understand the risks that can exist when using the Internet

The learner should be able to understand and identify examples of

Risks to user safety and privacy

- ***Identify theft***
- ***Defamation of character / Damage to reputation***
- ***Online predators, grooming and cyber-bullying***
- ***Phishing***
- ***Online fraud***
- ***Email and web scams***

Risks to data security

- ***Hacking***
- ***Unauthorised access***

Risks to system performance and integrity

- ***Viruses***
- ***Other malicious programs (worms, trojans, spyware, adware and rogue dialers)***

Minimise risks

- ***Responsible use and supervision (such as withholding personal information and reporting offensive behaviour)***
- ***Technical precautions (such as installing anti-virus software and firewalls)***
- ***Legislation, policy and guidelines (such as Copyright Law and internet use policy)***

Factors that affect the reliability of information on websites

- ***Currency and age***
- ***Purpose of the website***
- ***Source of information - primary and secondary information***
- ***Credibility - can the content be verified***
- ***Author / sponsor of page (who holds the copyright)***

Outcome 2 Know how to safeguard self and others when working online
The learner should be able to understand and identify examples of

Precautions to ensure own safety and privacy
- ***Using email filters***
- ***Dangers of opening emails and attachments, or downloading images from unknown sources***
- ***Dealing with unwanted email (spam)***
- ***Withholding personal information***
- ***Pseudonyms***
- ***Buddy lists and blocked user lists***
- ***Age restrictions on certain sites***
- ***Data Protection Act 1988***

Protect personal information online
- ***User names and passwords, including password strength and management***
- ***Use of password protection software for example when using credit cards online***

Online identify checks
- ***Identify verification services such as NetIDme***
- ***References from friends and trusted sources***
- ***Reputation management, such as eBay rating***

Cyberbullying
- ***By email, text or online***
- ***How to recognise the signs that someone might be a victim of cyber-bullying***

Reporting online safety issues
- ***How to report offending material or behaviour and to whom***

Where to get online help and information on e-safety
- ***Signpost to local and national guidance on online safety issues***
- ***Local Child Protection Officer (applicable for those under 16)***

Outcome 3 Take precautions to maintain data security
The learner should be able to understand and identify examples of

Precautions to maintain data security
- ***Digital copyright***
- ***Freedom of Information***

Precautions to maintain system performance and integrity
- ***What infrastructure and technical safeguards are in place***
- ***Software to detect and disable viruses and other malicious programs***
- ***Filtering systems and firewalls***

Browser safety and security settings

- ***Functions to support users – for example to block messages or alert problems***
- ***Parental controls***
- ***Content filtering***
- ***Pop-up blockers***
- ***Anti-malware, anti-phishing***
- ***Private browsing***
- ***Internet security suites***

Client software safety and security settings

- ***Activity-monitoring functions – for example to kick-out specific users, filter on banned words or record sent messages***
- ***Scope for chat/network moderators to proactively monitor potential abuse***
- ***Setting access permissions for certain users***

Outcome 4 Follow legal constraints, guidelines and procedures which apply when working online

The learner should be able to understand and apply

Legal constraints on the uploading and downloading of software and other digital content

- ***Intellectual property and copyright law***
- ***Types of software license***
- ***Computer Misuse***

Legal constraints on online behaviour

- ***Sexual Offences Act 2003***
- ***Children Act 2004***

Guidelines and procedures for the safe use of the Internet

- ***Local internet policy or guidelines for acceptable use of the internet, including up- and down-loading of data, images, videos etc;***
- ***Policies for use of web 2.0 and social networking sites – for example, access to third party sites such as Twitter, Facebook or Linked in;***
- ***Anti-bullying policy***
- ***Cookies and their acceptance***
- ***Use of company PCs/laptops/mobiles for personal email, file storage or other purposes***

Learners should be aware of good practice and recommended conduct online, including 'netiquette' in online communication. They should know their rights and responsibilities before accessing the internet.

Organisations have both legal and statutory duties to safeguard the welfare of all learners when making use of ICT. There are a variety of legal issues to consider within the e-safety context, including cyber-bullying; harassment; defamation; hosting liability and data protection.

Learners should be clear about what policies apply in their work or learning context and be aware that such policies are regularly reviewed and updated. It should also be made

clear when these policies apply – for example, when using mobile technologies, or working/learning remotely.

Where appropriate, they should know who is responsible for e-safety in their organisation.

Useful links

The following links are not intended to be prescriptive or to give a complete guide to the current legal framework:

Click Clever – Click Safe is a Government sponsored campaign from the UK Council for Child
Internet Safety (UKCIS).

CEOP, the Child Exploitation and Online Protection Centre, provide practical advice including modified toolbars for IE8 that young people can learn to protect themselves online.
Click Clever, Click Safe, Click CEOP at http://www.ceop.police.uk/

Report abuse, via the Child Exploitation and Online England Protection Centre.

The Internet Watch Foundation run the UK Hotline for reporting illegal content.
www.iwf.org.uk

JISClegal provide clear legal guidance for ICT use in education, research and external engagement.

JISCLegal provide an e-safety policy template for Colleges that might be easily adapted for your needs.

The Get Safe Online website provides clear up-to-date advice for individuals and small businesses. For example, see the information on how to set up your browser safely, with specific guidance for users of Internet Explorer, Opera and Firefox.
http://www.getsafeonline.org/

Make IT Secure is an Irish initiative with many useful links and resources:
http://www.makeitsecure.org/en/index.html

Accessing resources
The UK Access Management Federation, supports the use of the Shibboleth authentication system across education sectors. Closer control and co-ordination of access and authentication by educational institutions and other agencies will provide better safeguards regarding who can access online educational resources and services.

Preventing cyber bullying
"Cyber bullying involves the use of ICT to support deliberate, repeated, and hostile behaviour by an individual or group that is intended to harm others."
http://www.cyberbullying.org/

Using mobile technologies safely
Media coverage has raised health issues surrounding mobile phones and Wi-Fi radiation. The
Health Protection Agency (HPA) website provides approved guidance on this topic.

Unit 137 3D Drawing and planning software

Level: *1*
Credit value: *3*

Unit aim:
This unit is about the ability to use a software application, such as a Computer-Aided Design application, designed to create, modify and layout basic 3D designs for buildings to display in print or on a screen.

This unit is about the skills and knowledge required by an IT user to use basic design software tools and techniques appropriately to produce straightforward or routine designs and plans. Any aspect that is unfamiliar will require support and advice from others.

3D design software tools and techniques will be defined as 'basic' because:

- ***the software tools and functions involved will be predefined or commonly used***
- ***the range of inputting, manipulation and outputting techniques will be straightforward or routine***
- ***the type and structure of the task will be predetermined or familiar.***

Note: The term 3D plans is used throughout the learning outcomes and performance criteria. By plans we mean the outputs from 3D design drawing and planning tools used in the preparation of building designs and plans.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will:

1. ***be able to prepare information for 3D plans***
2. ***be able to create 3D plans.***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This will be assessed via an assignment which can be found on the City & Guilds website.

Unit 137 3D Drawing and planning software
Learning outcomes and assessment criteria

Outcome 1 Be able to prepare information for 3D plans

The learner can:

1. ***identify plans required***
2. ***identify templates appropriate to requirements***
3. ***use software tools to create objects for plans***
4. ***store and retrieve files for 3D plans***
5. ***respond appropriately to data entry error messages.***

Outcome 2 Be able to create 3D plans

The learner can:

1. ***use software tools and techniques to edit and manipulate objects***
2. ***annotate plans to describe components***
3. ***modify the display for viewing plans***
4. ***check plans meet needs.***

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare information for 3D plans

Create objects:

- ***Building components: walls; doors; windows; stairs; roofs; floors; fixtures and fittings; other components.***

Store:

- ***File format; filenames; folders; projects.***
- ***File management will vary according to the application.***
- ***Guidelines and conventions set by employer or organisation.***

Outcome 2 Be able to create 3D plans

Manipulate objects:

- ***Select; move; position; scale; drafting guides; format.***

Annotate:

- ***Add text; dimensions.***

Display:

- ***Selections; elevations; levels; 3D views.***

Unit 138 3D Design software

Level: ***1***
Credit value: ***3***

Unit aim:
This unit is about the ability to use a software application, such as a computer-aided design application, designed to create, modify and layout basic 3D designs for science, technology, engineering, arts and manufacturing to display in print or on a screen.

This unit is about the skills and knowledge required by an IT user to use basic design software tools and techniques appropriately to produce straightforward or routine designs. Any aspect that is unfamiliar will require support and advice from others.

3D design software tools and techniques will be defined as 'basic' because:

- ***the software tools and functions involved will be predefined or commonly used***
- ***the range of inputting, manipulation and outputting techniques will be straightforward or routine***
- ***the type and structure of the task will be predetermined or familiar.***

Note: The term 3D designs is used throughout the learning outcomes and performance criteria. By designs we mean the outputs from 3D design, drawing and planning tools used in the preparation of building designs and plans.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will:

1. ***be able to prepare information for 3D designs***
2. ***be able to create 3D designs.***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This will be assessed via an assignment which can be found on the City & Guilds website.

Unit 138 3D Design software
Learning outcomes and assessment criteria

Outcome 1 Be able to prepare information for 3D designs

The learner can:

1. ***identify contexts in which designs will be used***
2. ***identify what designs are needed***
3. ***use drawing tools to create design elements***
4. ***identify constraints available***
5. ***store and retrieve files for 3D designs***
6. ***respond to data entry error messages.***

Outcome 2 Be able to create 3D designs

The learner can:

1. ***use software tools and techniques to modify design elements***
2. ***use software tools and techniques to create 3D models***
3. ***annotate designs to label components***
4. ***identify presentation methods that can be used***
5. ***check designs meet needs.***

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare information for 3D designs

Design context:

- ***Environments; drawing; parts; assemblies; presentations; industrial application; materials.***

Design elements:

- ***Shapes: point; line; rectangles; polygon; arc; fillet; circle***
- ***3D geometries: block; cone; pyramid; drafting guides.***

Constraints:

- ***Geometric; dimensional.***

Store:

- ***File format; filenames; folders; workspaces; projects; templates.***
- ***File management will vary according to the application.***
- ***Guidelines and conventions set by employer or organisation.***

Outcome 2 Be able to create 3D designs

Modify design elements:

- ***Select; move; rotate; trim; extend; offset; format; align.***

Create models:

- ***Group; combine; solids; surfaces.***

Annotate:

- ***Add text; dimensions.***

Presentation methods:

- ***Screen views; 2D printing; 3D printing.***

Unit 139 3D Animation software

Level: ***1***
Credit value: ***3***

Unit aim:
This unit is about the ability to use a software application to create and manipulate basic 3D animation designs to display on a screen.

This unit is about the skills and knowledge required by an IT user to use basic 3D animation software tools and techniques appropriately to produce straightforward or routine animated sequences. Any aspect that is unfamiliar will require support and advice from others.

3D animation software tools and techniques will be defined as 'basic' because:

- ***the software tools and functions involved will be predefined or commonly used***
- ***the range of inputting, manipulation and outputting techniques will be straightforward or routine***
- ***the type and structure of the task will be predetermined or familiar.***

Learning outcomes
There are 2 learning outcomes to this unit. The learner will:

1. ***be able to prepare objects for 3D animation***
2. ***be able to create 3D animated sequences.***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This will be assessed via an assignment which can be found on the City & Guilds website.

Unit 139 3D Animation software
Learning outcomes and assessment criteria

Outcome 1 Be able to prepare objects for 3D animation

The learner can:

1. ***identify the context in which the animated sequence will be used***
2. ***use software tools to create objects for animation***
3. ***modify displays for viewing objects***
4. ***store and retrieve files for 3D animations***
5. ***respond to data entry error messages.***

Outcome 2 Be able to create 3D animated sequences

The learner can:

1. ***use software tools and techniques to manipulate objects***
2. ***animate objects in 3D***
3. ***display animated sequences***
4. ***check animated sequences meet needs.***

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare objects for 3D animation

Create objects:

- ***Graphic objects, text, images; clone objects; combine objects.***

Modify display:

- ***Workspace; cameras; views; gridlines.***

Store:

- ***File format; filenames; folders; projects.***
- ***File management will vary according to the application.***
- ***Guidelines and conventions set by employer or organisation.***

Outcome 2 Create 3D animated sequences

Manipulate objects:

- ***Select; move; rotate scale.***

Display:

- ***Playback; controls; adjust settings; lighting; speed.***

Unit 201 Improving productivity using IT

Level: ***2***
Credit value: ***4***

Unit aim
This is the ability to plan, evaluate and improve procedures involving the use of IT tools and systems to improve the productivity and efficiency of tasks and activities.

On completion of this unit the candidate should be able to plan and review their use of predefined or commonly used IT tools for activities that are at times non-routine or unfamiliar. As a result of reviewing their work, they will be able to devise solutions to use IT tools to improve productivity.

Examples of context: An improvement may be creating spreadsheets to automate price list updates in a sales or accounts business context using office software.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Plan, select and use appropriate IT systems and software for different purposes***
2. ***Review and adapt the ongoing use of IT tools and systems to make sure that activities are successful***
3. ***Develop and test solutions to improve the ongoing use of IT tools and systems***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.
Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 201 Improving productivity using IT
Learning outcomes and assessment criteria

Outcome 1 Plan, select and use appropriate IT systems and software for different purposes

The learner can:

1. ***Describe the purpose for using IT***
2. ***Describe the methods, skills and resources required to complete the task successfully***
3. ***Plan how to carry out tasks using IT to achieve the required purpose and outcome***
4. ***Describe any factors that may affect the task***
5. ***Select and use IT systems and software applications to complete planned tasks and produce effective outcomes***
6. ***Describe how the purpose and outcomes have been met by the chosen IT systems and software applications***
7. ***Describe any legal or local guidelines or constraints that may apply to the task or activity***

Outcome 2 Review and adapt the ongoing use of IT tools and systems to make sure that activities are successful

The learner can:

1. ***Review ongoing use of IT tools and techniques and change the approach as needed***
2. ***Describe whether the IT tools selected were appropriate for the task and purpose***
3. ***Assess strengths and weaknesses of final work***
4. ***Describe ways to make further improvements to work***
5. ***Review outcomes to make sure they match requirements and are fit for purpose***

Outcome 3 Develop and test solutions to improve the ongoing use of IT tools and systems

The learner can:

1. ***Review the benefits and drawbacks of IT tools and systems used, in terms of productivity and efficiency***
2. ***Describe ways to improve productivity and efficiency***
3. ***Develop solutions to improve own productivity in using IT***
4. ***Test solutions to ensure that they work as intended***

Teaching 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.

Outcome 1 Plan, select and use appropriate IT systems and software for different purposes

The learner should understand:

Purposes for using IT:

- ***Who and what the information is for,***
- ***When it must be finished, what information needs to be included***
- ***Where it will be used (on screen, sent to others, printed)***

Plan task:

- ***What information sources are needed***
- ***How they will be found and evaluated***
- ***What application software will be used***
- ***What skills and resources are needed to complete the task successfully and what are the priorities***
- ***Requirements for content, structure and layout***

Reasons for choosing IT:

- ***Time, convenience, cost; benefits of IT or manual methods of preparing, processing and presenting the same information***
- ***Own views on convenience and effectiveness at meeting needs, quality, accuracy;***
- ***How IT can make tasks easier than other methods, streamline business processes, increase productivity, any difficulties people have in using IT,***
- ***Legal or local guidelines or constraints may include***
- ***Data protection, copyright, software licensing***
- ***Security***
- ***Organisational house-style or brand guidelines***
- ***Local guidelines for working with IT and storage of information***

Outcome 2 Review and adapt the ongoing use of IT tools and systems to make sure that activities are successful

The learner should be able to and understand:

Review use of IT tools:

- ***Gather information to help make judgements***
- ***Analyse information about whether the IT tools and techniques are appropriate to the task and intended outcome***

IT tools selection:

- ***Time taken, convenience, cost, quality, accuracy, range of facilities, versatility***
- ***Transferability of information into other formats***
- ***Speed of Internet connection, time constraints of downloading large files***

Improvements to work:

- *Correct mistakes*
- *Avoid affecting other people's work*
- *More efficient and effective ways of doing things, learning new techniques*

Review outcomes:

- *Evaluate the quality of the information used*
- *Produce drafts*
- *Review against initial plans*
- *Check with intended audience*
- *Effect of own mistakes on others*

Outcome 3 Develop and test solutions to improve the ongoing use of IT tools and systems

The learner should be able to and understand:

Ways to improve productivity and efficiency:

- *Save time*
- *Save money*
- *Streamline work processes*
- *Increase output*
- *Improve quality of outputs*
- *Cost of solution*
- *Develop solutions:*
- *Set up short cuts*
- *Customise interface*
- *Record macros*

Unit 203 Set up an IT system

Level: ***2***
Credit value: ***4***

Unit aim
This unit is about the ability to safely set up the components of an IT system (eg personal computer - PC, keyboard, mouse and printer), removable storage media (eg data stick or external DVD drive), communication service to access the Internet and associated software and check that they are working properly. On completion of this unit the candidate should be able to select and connect up an IT system with a range of hardware, removable storage media and a communication service safely and run more advanced tests to check it is working successfully.

Examples of context: Re-assemble personal computer after moving house/office; transferring personal files to a new PC; setting up and testing a home wireless network

Learning outcomes
There are four learning outcomes to this unit.

The learner will:

1. ***Select and connect up a personal computer safely with associated hardware and storage media to meet needs***
2. ***Select and connect an IT system to a communication service to meet needs***
3. ***Install and configure software for use***
4. ***Check that the IT system and communication service are working successfully***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 203 Set up an IT system
Learning outcomes and assessment criteria

Outcome 1 Select and connect up a personal computer safely with associated hardware and storage media to meet needs

The learner can:

1. ***Describe what IT system components, storage and peripheral devices are needed***
2. ***Describe any health and safety issues associated with setting up an IT system***
3. ***Describe the characteristics of IT systems that affect performance***
4. ***Select and connect up the components of an IT system safely, including any peripheral devices and storage media***

Outcome 2 Select and connect an IT system to a communication service to meet needs

The learner can:

1. ***Select and connect communication hardware safely to an IT system***
2. ***Describe the factors that affect data transfer***
3. ***Select and connect to a communication service from an IT system***
4. ***Identify the login and password details needed to connect to an Internet Service Provider (ISP)***

Outcome 3 Install and configure software for use

The learner can:

1. ***Configure the user interface to meet needs***
2. ***Describe what security precautions need to be addressed***
3. ***Set up and configure virus protection software***
4. ***Install and set up application software to meet needs***
5. ***Backup and restore system and data files***

Outcome 4 Check that the IT system and communication service are working successfully

The learner can:

1. ***Identify what tests can be used to check the IT system and communications***
2. ***Select and run suitable tests to make sure that the system and communication service are working successfully***
3. ***Identify the help and troubleshooting facilities available to solve problems***
4. ***Respond to faults and error messages and use help and troubleshooting facilities to determine and take appropriate action***

Teaching 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.

Outcome 1 Select and connect up a personal computer safely with associated hardware and storage media to meet needs

The learner should be able to and understand:

Health and safety issues:

- ***Health and safety issues: risks from hardware, electrical connection risks and guidelines, use and disposal of cleaning materials, handling equipment***
- ***Risks to self and others from using hardware; health and safety point of contact***

IT system performance:

- ***Processor speed, memory size, storage capacity, network capability***

IT system components:

- ***Will vary according to the set up, for example: personal computer or other systems, monitor, keyboard, mouse (or other pointing device)***

Peripheral devices:

- ***Speakers, modem, scanner, games console, joystick; TV, data projector, white board***
- ***Plug and play devices***
- ***Customised setup routines***
- ***Printer and other device drivers***

Storage media:

- ***Disk, CD/DVD, data/memory stick, media card, mobile device, removable hard drive***
- ***Customised setup routines***

Outcome 2 Select and connect an IT system to a communication service to meet needs

- ***The learner should be able to and understand:***

Communication hardware:

- ***Router, modem, mobile data device, wireless router***

Data transfer:

- ***Which combinations of hardware and software offer different data transmission speeds; download capacity***

Communication service:

- ***Broadband, dial up, wireless, network connections, mobile device, ISP***

Outcome 3 Install and configure software for use

The learner should be able to and understand:

User interface:

- ***Operating system, date, time, language settings; Set up user account; desktop shortcuts;***
- ***customise start-up***

Set up applications:

- ***Software licence; installation disks; manuals; customised settings; download software; map network drive; register software***

Outcome 4 Check that the IT system and communication service are working successfully

The learner should be able to and understand:

System tests:

- ***Hardware and software***
- ***Check printer and other drivers, print test pages***
- ***Check files are saved on storage media***
- ***Open and close applications – including accessing across a network***
- ***Open and close files – including accessing across a network***
- ***Certificates and labelling***

Communication tests:

- ***Send and receive test email, navigate to ISP website; ping IP address***

Unit 202 IT user fundamentals

Level: ***2***
Credit value: ***3***

Unit aims

This unit is about the ability to use IT systems sensibly and purposefully to meet needs, to do so safely and securely in line with organisational guidelines, to respond appropriately to IT problems and to evaluate the use of IT systems.

On completion of this unit the candidate should be able to select and use suitable techniques to operate IT systems for a varied range of activities, some of which are at times non-routine or unfamiliar, and take some responsibility for responding appropriately to IT errors and problems.

Examples of context: Using a personal computer or laptop; organising and backing up own data files, as well as an understanding why it is important to undertake security measures, backups and what media could be used.

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Use IT systems to meet a variety of needs [UIS2:1 < not 1.3 – see ISF]***
2. ***Manage information storage and retrieval appropriately [UIS2:3]***
3. ***Follow and understand the need for safety and security practices [UIS2:4] (SM4)***
4. ***Maintain system and troubleshoot IT system problems [UIS2:5] (EP3)***

Guided learning hours

It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 202 IT user fundamentals
Learning outcomes and assessment criteria

Outcome 1 Use IT systems to meet a variety of needs [UIS2:1 < not 1.3 – see ISF]

The learner can:

1. *Use correct procedures to start and shutdown an IT system [UIS2:1.1]*
2. *Select and use interface features effectively to interact with IT systems [UIS: 1.4]*
3. *Select and adjust system settings as appropriate to individual needs [UIS: 1.5]*
4. *Select and use a communication service to access the Internet [UIS2:1.2]*
5. *Use appropriate terminology when describing IT systems*

Outcome 2 Manage information storage and retrieval appropriately [UIS2:3]

The learner can:

1. *Manage files and folders to enable efficient information retrieval [UIS2:3.1]*
2. *Identify when and why to use different types of storage media*
3. *Organise and store information, using general and local conventions where appropriate [UIS2:3.2]*

Outcome 3 Follow and understand the need for safety and security practices [UIS2:4] (SM4)

The learner can:

1. *Work safely and take steps to minimise physical stress [UIS2:4.1]*
2. *Describe the danger of computer viruses, and how to minimise risk [UIS2:4.3]*
3. *Keep information secure [UIS2:4.2]*
4. *Explain why it is important to stay safe and to respect others when using ICT-based communication [UIS2:4.4]*
5. *Follow relevant guidelines and procedures for the safe and secure use of IT*

Outcome 4 Maintain system and troubleshoot IT system problems [UIS2:5] (EP3)

The learner can:

1. *Describe why routine and non-routine maintenance is important and when to carry it out*
2. *Identify sources of help and how to get expert advice*
3. *Carry out regular routine maintenance of IT systems safely*
4. *Identify IT problems and take appropriate action [UIS2:5.1]*

Teaching 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.

Outcome 1 Use IT systems to meet a variety of needs [UIS2:1 < not 1.3 – see ISF]

The learner should be able to and understand:

Start and shutdown procedures:

- ***Log in, enter password, log out, shut down menu, lock, unlock***

IT system:

- ***Will vary according to the set up for a PC or laptop or other system, processor and its operating system***
- ***Input device (eg keyboard, mouse or other pointing device), output device (eg screen, printer)***
- ***Storage media (eg memory, disk, CD, DVD, data/memory stick, hard drive, network drive)***

Interface features:

- ***Desktop, window, dialog box, menu, submenu, toolbar, icon, scrollbar, button, drag and drop, zoom, minimise, maximise***

System settings:

- ***Window size, mouse settings, icon size, screen resolution, desktop contrast, sound volume***

Communication service:

- ***Broadband, dial up, wireless, network connections, mobile device***

Outcome 2 Manage information storage and retrieval appropriately [UIS2:3]

The learner should be able to and understand:

File handling:

- ***Files: create, name, open, save, save as, print, close; move, copy, rename, delete; display file lists, sort, search***
- ***Folders: create and name folders and subfolders***

Storage media:

- ***Disk, CD, DVD, data/memory stick, media card, hard drives, network drive, mobile device***

Organise and store:

- ***Insert, remove, name, label, archive***

Outcome 3 Follow and understand the need for safety and security practices [UIS2:4] (SM4)

The learner should be able to and understand:

Work safely:

- *Health and safety issues: risks from hardware, electrical connection risks and guidelines, use and disposal of cleaning materials, handling equipment*
- *Risks to self and others from using hardware*
- *Organisational guidelines and points of contact*

Physical stress:
- *Adjust seating and lighting, avoid hazards, take breaks, arrangement of hardware and cables, wrist rests workspace; working conditions*

Information security:
- *Copies, backup, password, PIN, avoid inappropriate disclosure of information*

Minimise risk:
- *Virus-checking software, anti-spam software, firewall, treat files, software and attachments from unknown sources with caution*

Staying safe:
- *Protect personal information*
- *Avoid misuse of images*
- *Use appropriate language*
- *Respect confidentiality*
- *Use copy lists with discrimination*

Guidelines and procedures:
- *Set by: employer or organisation or centre*

Topic:
- *Health and safety, security, copyright, netiquette*

Outcome 4 Maintain system and troubleshoot IT system problems [UIS2:5] (EP3)

The learner should be able to and understand:

Routine maintenance:
- *Clean hardware, delete unwanted data; Manufacturer's guidelines; what maintenance can be done safely; what should be left to experts; what problems may happen if maintenance is not done; Delete unwanted files*

Cleaning:
- *For different components of an IT system: to maintain functionality; to maintain appearance*
- *Printer: replace printer consumables (paper, toner cartridge); print test page, align cartridge*

Expert advice:
- *Be aware of limits of own understanding and skills*
- *Make use of help menus, manufacturer's guidelines, follow advice from an expert*
- *What information might be needed by experts to help solve a problem*

IT problems:
- *Program not responding, error dialogue, storage full, paper jam*

Unit 204 Optimise IT system performance

Level: ***2***
Credit value: ***4***

Unit aims
This is the ability to keep a personal computer system up to date, fully functional and operating efficiently; and to solve problems and errors involving the interaction between hardware and software components.

On completion of this unit the candidate should be able to carry out appropriate procedures to optimise system performance and can solve problems and errors on most types of hardware and software using skills and experience.

Examples of context: Using 'defrag' to improve disk performance. Errors might include: software that needs more memory to open or recovery from damage from viruses.

Learning outcomes
There are 5 learning outcomes to this unit. The learner will be able to:

1. ***Keep computer hardware and software operating efficiently***
2. ***Manage files and disks to optimise performance***
3. ***Troubleshoot and respond to common IT system problems and errors***
4. ***Customise the working environment to optimise performance***
5. ***Maintain software to meet performance needs***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 204 Optimise IT system performance
Learning outcomes and assessment criteria

Outcome 1 Keep computer hardware and software operating efficiently

The learner can:

1. ***Describe the main features and functions of the computer operating system***
2. ***Take appropriate steps to protect computer hardware from loss or damage***
3. ***Configure anti-virus and other security software***
4. ***Install and configure printers and other peripheral devices***
5. ***Configure network settings for mobile and remote computing***
6. ***Configure a computer to present or display information to an audience***

Outcome 2 Manage files and disks to optimise performance

The learner can:

1. ***Use file navigation software to organise files into an appropriate folder structure***
2. ***Backup and restore files and folders***
3. ***Describe why it is important to undertake file housekeeping of the information stored on computer systems and how it affects performance***
4. ***Manage file and disk housekeeping so that information is secure and easy to find***
5. ***Share files and folders with other users***
6. ***Distinguish between data and system file types***

Outcome 3 Troubleshoot and respond to common IT system problems and errors

The learner can:

1. ***Describe common IT system problems and what causes them***
2. ***Describe and record IT system problems to enable effective support***
3. ***Describe when to try to solve a problem independently, and when to get expert advice***
4. ***Troubleshoot and respond to IT system problems appropriately***
5. ***Check that errors and problems have been resolved satisfactorily***

Outcome 4 Customise the working environment to optimise performance

The learner can:

1. ***Describe methods that can be used to optimise system performance***
2. ***Select and adjust system settings to optimise performance as appropriate***
3. ***Configure the automatic start of programmes and other graphical display options***

Outcome 5 Maintain software to meet performance needs

The learner can:

1. ***Describe when and how to upgrade software***
2. ***Use appropriate techniques to maintain software***
3. ***Locate and install driver files for different devices***

Teaching 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.

Outcome 1 Keep computer hardware and software operating efficiently

The learner should be able to and understand:

Computer system:
- ***Make, model, serial number; operating system version; memory capacity; disk capacity***

Security software:
- ***Anti-virus, malware. Frequency; timing; updates, firewall settings***

Network settings:
- ***Remote access, connections and shared network folders, configure remote access settings, power management***

Outcome 2 Manage files and disks to optimise performance

The learner should be able to and understand:

Information storage:
- ***Data files, folders, sub-folders, storage media; archives***

File housekeeping:
- ***Naming and labelling conventions; organising files, folders and storage media; saving back-ups; deleting unwanted files; changing default settings for saving data; properties; disk partitions***

Outcome 3 Troubleshoot and respond to common IT system problems and errors

The learner should be able to and understand:

IT system problems:
- ***Program not responding, paper jam, storage full, error dialogue, virus threat, memory low, connection loss***

Record IT system problems:
- ***Error log, description, frequency of occurrence, severity***

Expert advice:
- ***Limits of own understanding and skills, help menus, manufacturer's guidelines, how to follow advice, information needed by experts, where to get advice to deal with different hardware and software problems***

Outcome 4 Customise the working environment to optimise performance

The learner should be able to and understand:

System settings:

- ***Desktop, input and output settings; display settings, multiple monitors***

Optimise performance:

- ***Memory management; power management; disk partition***

Outcome 5 Maintain software to meet performance needs

The learner should be able to and understand:

Upgrade software:

- ***Benefits of upgrading; drawbacks of not upgrading; the need to check compatibility of software and hardware upgrades with other parts of the system***

Maintain software:

- ***Install software patches and upgrades***

Unit 205 IT security for users

Level: ***2***
Credit value: ***2***

Unit aim
This is the ability to protect hardware, software malfunction and unauthorised access. On completion of this unit the candidate should be bale to avoid common security risks and control access to software and data; and use a wider range of methods to protect software and data (eg from exchanging information by e-mail or when downloading software from the Internet).

Examples of context: Run anti-virus software to scan system and maintain security log. Home user ensuring their PC is protected by firewall and runs up-to-date anti-virus software routinely.

Learning outcomes
There is one learning outcome to this unit.

The learner will:

1. ***Select and use appropriate methods to minimise security risk to IT systems and data***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 205 IT security for users
Learning outcomes and assessment criteria

Outcome 1 Select and use appropriate methods to minimise security risk to IT systems and data

The learner can:

1. ***Describe the security issues that may threaten system performance***
2. ***Apply a range of security precautions to protect IT systems and data***
3. ***Describe the threats to system and information security and integrity***
4. ***Keep information secure and manage personal access to information sources securely***
5. ***Describe ways to protect hardware, software and data and minimise security risk***
6. ***Apply guidelines and procedures for the secure use of IT***
7. ***Describe why it is important to backup data and how to do so securely***
8. ***Select and use effective backup procedures for systems and data***

Teaching 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.

Outcome 1 Select and use appropriate methods to minimise security risk to IT systems and data

The learner should be able to and understand:

Threats to system performance:

- ***Unwanted e-mail (often referred to as "spam"), malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers) and hackers; hoaxes***

Security precautions:

- ***Use access controls***
- ***Configure anti-virus software, adjust firewall settings, adjust internet security settings***
- ***Carry out security checks, report security threats or breaches***
- ***Backup, store personal data and software safely***
- ***Treat messages, files, software and attachments from unknown sources with caution; proxy servers; download security software patches and updates;***

Threats to information security:

- ***From theft, unauthorised access, accidental file deletion, use of removable storage media; malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers), hackers, phishing and identity theft***
- ***Unsecured and public networks, default passwords and settings, wireless networks, Bluetooth, portable and USB devices***

Access to information sources:

- ***Username and password/PIN selection and management, password strength; how and when to change passwords; online identity/profile***
- ***Real name, pseudonym, avatar; what personal information to include, who can see the information; Respect confidentiality, avoid inappropriate disclosure of information***

Protect systems and data:

- ***Access controls: physical controls, locks, passwords, access levels***
- ***Security measures: anti-virus software, firewalls, security software and settings***
- ***Risk assessment***
- ***Anti-spam software, software updates***

Security guidelines and procedures:

- ***Set by: employer or organisation or centre***
- ***Security, privacy, legal requirements***
- ***How to use products to ensure information security within organisations or at home or in centre***

Unit 206 IT communication fundamentals

Level: ***2***
Credit value: ***2***

Unit aims
This is the ability to access, search for and retrieve information using browser software from the Internet and/or intranets and exchange information using e-mail or IT-based communication systems.

On completion of this unit the candidate should be able to select and use a varied range of appropriate IT tools and techniques to find and review information and send and receive messages using IT-based communication systems to independently respond to activities that are at times non- routine or unfamiliar.

Examples of context: Setting up email folders; using the internet to research a new product and select a reliable supplier

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Select and use a variety of sources of information to meet needs [FSI2:1]***
2. ***Access, search for, select and use Internet-based information and evaluate its fitness for purpose [FSI2:2]***
3. ***Select and use IT to communicate and exchange information safely, responsibly and effectively [DPC2:5]***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 206 IT communication fundamentals
Learning outcomes and assessment criteria

Outcome 1 Select and use a variety of sources of information to meet needs [FSI2:1]

The learner can:

1. *Select and use appropriate sources of IT-based and other forms of information which match requirements [FSI2:1.1]*
2. *Describe different features of information*
3. *Recognise copyright and other constraints on the use of information [FSI2:1.2]*

Outcome 2 Access, search for, select and use Internet-based information and evaluate its fitness for purpose [FSI2:2]

The learner can:

1. *Access, navigate and search Internet sources of information purposefully and effectively [FSI2:2.1] (IE2)*
2. *Use appropriate search techniques to locate relevant information [FSI2:2.2]*
3. *Use discrimination to select information that matches requirements and is fit for purpose [FSI2:2.3] (IE4)*
4. *Evaluate information to make sure it matches requirements and is fit for purpose*

Outcome 3 Select and use IT to communicate and exchange information safely, responsibly and effectively [DPC2:5]

1. *Create, access, read and respond appropriately to e-mail and other IT-based communication, including attachments, and adapt style to suit audience [DPC2:5.1]*
2. *Use IT tools to manage an address book and schedule activities [DPC2:5.2 part]*
3. *Manage storage of IT-based communications [DPC2:5.2 part]*
4. *Describe how to respond to common IT-based communication problems*
5. *Respond appropriately to common IT-based communication problems*

Teaching 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.

Outcome 1 Select and use a variety of sources of information to meet needs [FSI2:1]

The learner should be able to and understand:

Sources of information:

- ***Newspapers, books, images, maps, conversations, CDs, DVDs, text messages, podcasts, Internet, intranet, web logs, web based reference sites***

Features of information:

- ***Factual information, creative work, opinions, information that is continually updated (or live), interactive information, guides and directories***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism, permissions***

Outcome 2 Access, search for, select and use Internet-based information and evaluate its fitness for purpose [FSI2:2]

The learner should be able to and understand:

Access, navigate and search:

- ***Enter a web address, use a search engine, browse, save and use bookmarks***

Search techniques:

- ***Search key words, quotation marks, search within results, relational operators, 'find' or search tool, choice of search engine, multiple search criteria, logical operators, wild cards, database query techniques***

Evaluate information:

- ***Recognise intention and authority of provider, currency of the information, relevance, accuracy, bias, level of detail, sufficiency, synthesize information from a variety of sources***

Outcome 3 Select and use IT to communicate and exchange information safely, responsibly and effectively [DPC2:5]

The learner should be able to and understand:

Email and other IT-based communications:

- ***Open mailbox, read, reply to individuals, reply to all, reply with history, delete messages, use group list, forward; communicate using from, to, cc, bcc; subject and content fields, add and open attachments, use instant messaging, contribute to forums, web conferences, web logs or web based reference sites***

Address book:

- ***Add, amend and delete contact entries, contacts list, distribution list; sort, display selected fields***

Schedule activities:

- ***Task list***
- ***Calendar; send and respond to meeting invitations***

Storage of IT-based communications:

- ***Create and maintain message folders and sub-folders; delete unwanted messages;***
  - ***compress, expand and save attachments; archive and retrieve messages***

IT-based communication problems:

- ***Difficulties with attachments, e-mail from unknown or misrepresented users, inappropriate content, e-mail intended to cause problems (SPAM or chain mail), size limits, software that causes problems (viruses, spyware, key loggers)***

Unit 207 Using the internet

Level: ***2***
Credit value: ***4***

Unit aims
This is the ability to set up and use appropriate connection methods to access the Internet; make the best use of browser software tools and techniques to search for, retrieve and exchange information using a browser or public search engine, and work safely and securely online.

On completion of this unit a candidate should be able to understand and make effective use of a connection method and intermediate Internet software tools and techniques to search for and exchange information for at times non-routine or unfamiliar activities.

Internet tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions will be at times non-routine or unfamiliar; and***
- ***the range of techniques used for searching and exchanging information will involve a number of steps and at times be non-routine or unfamiliar.***

Examples of context: customising a browser to alter the homepage and display data feeds from selected news sites

Learning outcomes
There are 5 learning outcomes to this unit. The learner will be able to:

1. ***Connect to the internet***
2. ***Use browser software to navigate web pages***
3. ***Use browser tools to search for information from the internet***
4. ***Use browser software to communicate information online***
5. ***Understand the need for safety and security practices when working online***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 207 Using the internet
Learning outcomes and assessment criteria

Outcome 1 Connect to the internet

The learner can:

1. ***Identify different types of connection methods that can be used to access the Internet***
2. ***Identify the benefits and drawbacks of the connection method used***
3. ***Get online with an Internet connection***
4. ***Use help facilities to solve Internet connection problems***

Outcome 2 Use browser software to navigate web pages

The learner can:

1. ***Select and use browser tools to navigate webpages***
2. ***Identify when to change browser settings to aid navigation***
3. ***Adjust browser settings to optimise performance and meet needs***
4. ***Identify ways to improve the performance of a browser***

Outcome 3 Use browser tools to search for information from the internet

The learner can:

1. ***Select and use appropriate search techniques to locate information efficiently***
2. ***Describe how well information meets requirements***
3. ***Manage and use references to make it easier to find information another time***
4. ***Download, organise and store different types of information from the Internet***

Outcome 4 Use browser software to communicate information online

The learner can:

1. ***Identify opportunities to create, post or publish material to websites***
2. ***Select and use appropriate tools and techniques to communicate information online***
3. ***Use browser tools to share information sources with others***
4. ***Submit information online***

Outcome 5 Understand the need for safety and security practices when working online

The learner can:

1. ***Describe the threats to system performance when working online***
2. ***Work responsibly and take appropriate safety and security precautions when working online***
3. ***Describe the threats to information security when working online***
4. ***Manage personal access to online sources securely***
5. ***Describe the threats to user safety when working online***
6. ***Describe how to minimise internet security risks***
7. ***Apply laws, guidelines and procedures for safe and secure Internet use***
8. ***Explain the importance of the relevant laws affecting Internet users***

Teaching 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.

Outcome 1 Connect to the internet

The learner should be able to and understand:

Connection methods:

- ***LAN, VPN, modem, router, wireless, dial-up, broadband***
- ***Cable, DSL; mobile phone with wireless application protocol (WAP) or 3rd Generation (3G) technology***
- ***Intranet server (eg via parallel, serial or USB connections)***

Benefits and drawbacks of connection methods:

- ***Speed, stability, services offered by ISP, accessibility***

Outcome 2 Use browser software to navigate web pages

The learner should be able to and understand:

Browser tools:

- ***Enter, back, forward, refresh, stop, history, bookmark, new tab***
- ***Toolbar, search bar, address bar***
- ***Home, go to, follow link, URL, save web address***

Browser settings:

- ***Homepage, autofill, cookies, security, pop-ups, appearance, privacy, search engine, zoom, personalisation, accessibility***
- ***Software updates, temporary file storage***

Browser performance:

- ***Delete cache, delete temporary files, work offline, save websites***

Outcome 3 Use browser tools to search for information from the internet

The learner should be able to and understand:

Search techniques:

- ***Search key words, quotation marks, search within results, relational operators, 'find' or search tool, turn questions into key words for an online query***
- ***Choice of search engine, multiple search criteria, logical operators, wild cards***

Information requirements:

- ***Recognise intention and authority of provider, currency of the information, relevance, accuracy, bias, level of detail, sufficiency, synthesize information from a variety of sources***

References:

- *History, favourites, bookmarks*
- *Links, log useful sites, RSS, data feeds, saved search results;*

Download information:
- *Webpage, website*
- *Images, text, numbers, sound, games, video, TV, music*

Outcome 4 Use browser software to communicate information online

The learner should be able to and understand:

Communicate information:
- *Saved information (pod-casts, text, images), real time information (blogs, instant messaging), file transfer protocol [FTP], hypertext transmission protocol [http]*
- *VOIP*

Share information sources:
- *Send link, send webpage, reference lists*

Submit information:
- *Fill-in and submit web forms; ratings, reviews, recommendations*
- *Wikis, discussion forums; interactive sites*
- *Netiquette*

Outcome 5 Understand the need for safety and security practices when working online

The learner should be able to and understand:

Threats to system performance:
- *Unwanted e-mail (often referred to as "spam"), malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers) and hackers*
- *Hoaxes*

Safety precautions:
- *Firewall settings, Internet security settings*
- *Report inappropriate behaviour*
- *Report security threats or breaches*
- *Netiquette, content filtering, avoid inappropriate disclosure of information, carry out security checks, proxy servers*

Threats to information security:
- *Malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers), hackers, phishing and identity theft*

Information security:
- *Username and password/PIN selection and management, password strength, online identity/profile*
- *Real name, pseudonym, avatar*
- *What personal information to include, who can see the information, withhold personal information*

Threats to user safety:

- *Abusive behaviour ("cyber bullying"), inappropriate behaviour and grooming*
- *Abuse of young people*
- *False identities*
- *Financial deception, identity theft*

Minimise risk:

- *Virus-checking software, anti-spam software, firewall*
- *Treat messages, files, software and attachments from unknown sources with caution, internet settings, block sites, parental controls*

Laws, guidelines and procedures:

- *Set by employer or organisation or centre relating to Health and safety, security; equal opportunities, disability*
- *Laws: relating to copyright, software download and licensing, digital rights*

Unit 208 Using e-mail

Level: ***2***
Credit value: ***3***

Unit aims
This is the ability to make the best use of e-mail software to safely and securely send, receive and store messages.

On completion of this unit a candidate should be able to understand and make effective use of a range of intermediate e-mail software tools to send, receive and store messages for at times non- routine or unfamiliar activities.

E-mail tools and techniques will be defined as 'intermediate' because:

- ***the techniques required will involve a number of steps and at times be non-routine or unfamiliar.***
- ***the software tools and functions will be at times non-routine or unfamiliar; and***

Examples of context: Adding a signature to emails; changing settings to deal with junk mail effectively

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Use e-mail software tools and techniques to compose and send messages***
2. ***Manage incoming e-mail effectively***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 208 Using e-mail
Learning outcomes and assessment criteria

Outcome 1 Use e-mail software tools and techniques to compose and send messages

The learner can:

1. ***Select and use software tools to compose and format e-mail messages, including attachments***
2. ***Determine the message size and how it can be reduced***
3. ***Send e-mail messages to individuals and groups***
4. ***Describe how to stay safe and respect others when using e-mail***
5. ***Use an address book to organise contact information***

Outcome 2 Manage incoming e-mail effectively

The learner can:

1. ***Follow guidelines and procedures for using e-mail***
2. ***Read and respond to e-mail messages appropriately***
3. ***Use email software tools and techniques to automate responses***
4. ***Describe how to archive e-mail messages, including attachments***
5. ***Organise, store and archive e-mail messages effectively***
6. ***Respond appropriately to e-mail problems***

Teaching 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.

Outcome 1 Use e-mail software tools and techniques to compose and send messages

The learner should be able to and understand:

Compose and format e-mail:

- ***Format text (font, size, colour)***
- ***Format paragraphs (alignment, bullets, numbered list), spell check, priority***
- ***Format (rtf, plain text, html), draft, signature, page set up, backgrounds, sound, movie, hyperlink, work on- and offline***

Message size:

- ***Managing attachments***
- ***Mailbox restrictions***
- ***Methods to reduce size***

Send e-mail:

- ***To, from, cc, bcc, subject***
- ***Reply, reply all, forward, distribution list, reply with history***
- ***Options, set message flags for priority, confidentiality, response request, vote***

Staying safe:

- ***Avoid inappropriate disclosure of personal information***
- ***Avoid misuse of images***
- ***Use appropriate language, respect confidentiality***
- ***Use copy lists with discrimination***

Address book:

- ***Add, edit, delete contact entries***
- ***Contacts list, distribution list, sort, display selected fields***

Outcome 2 Manage incoming e-mail effectively

The learner should be able to and understand:

Guidelines and procedures:

- ***Set by employer or organisation, security, copyright***
- ***Netiquette***
- ***Password protection***

E-mail responses:

- ***Decide on priorities, gather information needed to respond, decide when and who to copy in, what to do about attachments***

Automate responses:

- *Rules, automatic replies, changing settings to deal with junk mail, out of office*

Organise and store e-mail:

- *Folders, subfolders, delete unwanted messages, backup, address lists, move after sending, rules, archive folders; attachments, file compression*

Email problems:

- *Due to message size or number of attachments, messages from unknown users (SPAM, junk, chain-mails, 'phishing'), viruses, messages intended to cause problems*
- *Mailbox full*

Unit 209 Using collaborative technologies

Level: *2*
Credit value: *4*

Unit aim
This is the ability to use IT tools and devices for collaborative working and communications, such as web or video conferencing, instant messaging/chat, online phone and video calls; online forums, social networking sites, wikis and other centralised depositories for documents, blogging, RSS and data feeds, bulk SMS or online work management tools.

On completion of this unit a candidate should be able to facilitate the use of appropriate combinations of IT tool and devices for groups to work collaboratively by:

- ***planning and selecting the IT tools and devices to be used for work purposes and tasks;***
- ***preparing and setting up access to collaborative technologies;***
- ***presenting information and facilitating others contributions; and***
- ***moderating the use of collaborative technologies.***

Any aspect that is unfamiliar may require support and advice from others.

Examples of context: Typical collaborative activities may include – setting up a group on a social networking site for a work team; inviting people to join an online conference

Learning outcomes
There are four learning outcomes to this unit.

The learner will:

1. ***Stay safe and secure when working with collaborative technology***
2. ***Plan and set up IT tools and devices for collaborative working***
3. ***Prepare collaborative technologies for use***
4. ***Contribute to tasks using collaborative technologies***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 209 Using collaborative technologies
Learning outcomes and assessment criteria

Outcome 1 Stay safe and secure when working with collaborative technology

The learner can:

1. ***Take appropriate steps to avoid risks when working with collaborative technology, in line with relevant guidelines***
2. ***Explain what risks there may be in using collaborative technology and how to keep them to a minimum***
3. ***Use appropriate methods to promote trust when working collaboratively***
4. ***Carry out appropriate checks on others' online identities and different types of information***
5. ***Identify and respond to inappropriate content and behaviour***

Outcome 2 Plan and set up IT tools and devices for collaborative working

The learner can:

1. ***Describe the purposes for using collaborative technologies***
2. ***Describe what outcomes are needed from collaborative working and whether or not archiving is required***
3. ***Describe the roles, IT tools and facilities needed for collaborative tasks and communication media***
4. ***Describe the features, benefits and limitations of different collaborative technology tools and devices***
5. ***Describe the compatibility issues in different combinations of collaborative tools and devices***
6. ***Select an appropriate combination of IT tools and devices to carry out collaborative tasks***
7. ***Connect and configure the combination of IT tools and devices needed for a collaborative task***

Outcome 3 Prepare collaborative technologies for use

The learner can:

1. ***Describe what access rights and issues others may have in using collaborative technologies***
2. ***Assess what permissions are needed for different users and content***
3. ***Set up and use access rights to enable others to access information***
4. ***Set up and use permissions to filter information***
5. ***Adjust settings so that others can access IT tools and devices for collaborative working***
6. ***Select and use different elements to control environments for collaborative technologies***
7. ***Select and join networks and data feeds to manage data to suit collaborative tasks***

Outcome 4 Contribute to tasks using collaborative technologies

The learner can:

1. *Describe rules of engagement for using collaborative technologies*
2. *Enable others to contribute responsibly to collaborative tasks*
3. *Present relevant and valuable information*
4. *Moderate the use of collaborative technologies*
5. *Archive the outcome of collaborative working*
6. *Assess when there is a problem with collaborative technologies and when to get expert help*
7. *Respond to problems with collaborative technologies*

Teaching 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.

Outcome 1 Stay safe and secure when working with collaborative technology

The learner should be able to and understand:

Guidelines for using collaborative technology:

- ***Guidelines set by your organisation or community of interest***
- ***About uses, security, safety, copyright, plagiarism, libel, confidentiality and data protection***

Risks when working with collaborative technologies:

- ***Inappropriate disclosure of personal information***
- ***Misuse of images, appropriate language, respect confidentiality, copy lists***
- ***What to do in a power cut, about data loss***
- ***From unwanted or inappropriate content or access, back-ups, data exporting***

Methods to promote trust:

- ***Contact information, membership of professional bodies, recommendations, links, policies, standards***

Checks on others' online identities:

- ***Compare sources, cross references***

Outcome 2 Plan and set up IT tools and devices for collaborative working

The learner should be able to and understand:

Purposes for collaborative working:

- ***Will vary according to the task, but may include:***
  - ***sharing, displaying and recording information***
  - ***discussing and reflecting, establishing identity, joining interest groups***
  - ***developing ideas, contributing to research, carrying out research***
  - ***exporting information to other formats***
  - ***establishing communities of interest***
  - ***managing identities, managing data***

Outcomes of collaborative working:

- ***Measurable (eg document, minutes, notes, project plan, transcript)***
- ***Ephemeral (eg conversation, agreement)***
- ***Whether an audit trail is needed***

Collaborative technology tools and devices:

- ***Hardware: mobile, laptop, desktop, peripherals (eg headset, handset, microphone, camera, 3G modem)***
- ***Software: products, services, sites***

Communication media:

- ***Text, audio/spoken, still/video/animated images***

Connect and configure collaborative technologies:

- *Connect to another site, check whether both sites are connected*
- *Connect to multiple sites, check when multiple sites are connected*
- *Adjust clarity*

Compatibility issues:

- *Between browser software, operating systems, plug-ins*

Outcome 3 Prepare collaborative technologies for use

The learner should be able to and understand:

Access to collaborative technologies:

- *Download software, agree terms and conditions, register or set up an ID*
- *Accessibility issues, adjusting access settings*

Adjust settings:

- *Hardware: colour, type size, window size, volume*
- *Browser: cookies, pop-ups*
- *Security settings: firewall*

Environments for collaborative technologies:

- *User interface: choose skins, templates, widgets, wizards, cut and paste from other sources*
- *Work environment: lighting, position of devices*

Managing data for collaborative working:

- *Sources, subscription details, terms and conditions*
- *Aims of data management*
- *Benefits, features and limitations of networks and feeds*

Permissions:

- *Web address, phone number, user name and password, set up user names and access codes*

Outcome 4 Contribute to tasks using collaborative technologies

The learner should be able to and understand:

Contributing responsibly:

- *Follow the rules of 'netiquette', respect others contributions, avoid dominating and not responding*
- *Legal and cultural issues*

Moderating collaborative working:

- *Reporting inappropriate content*
- *Checking posts*
- *Archiving outcomes:*
- *Cut, paste, save; record, transcribe*

Problems with collaborative technologies:

- *Routine (eg settings, software not responding, hardware connections)*
- *Non-routine (eg access, transmission speed, bandwidth)*

Respond to problems:

- ***Follow on screen help, know who to ask for expert help***
- ***Use diagnostic wizards, check bandwidth***

Unit 210 Using mobile IT devices

Level: ***2***
Credit value: ***2***

Unit aims

This is the ability to set up and use mobile or handheld devices such as a smartphone, PDA, portable media player, electronic organiser or data logger, for data capture, processing, exchange and storage.

On completion of this unit a candidate should be able to understand and make effective use of mobile or handheld devices and use intermediate tools and techniques to exchange information between devices on a regular basis for activities. Any aspect that is unfamiliar may require support and advice from others.

The use of mobile technologies will be defined as 'intermediate' because:

- ***the tools and software used will be additional to the tools and software pre-loaded onto the device and at times the techniques for use will be non-routine or unfamiliar; and***
- ***the techniques used for sharing information and files between devices will involve a number of steps and at times be non-routine or unfamiliar.***

Examples of context: Using a PDA to support regular file-sharing requirements for day to day functions at work or to regularly maintain a web space with content captured on a mobile phone. Producing voice commands for regular tasks on the mobile phone, transferring reader software for e-books or PDF documents to the mobile phone, capturing a photo and sending it to a friend's laptop via Bluetooth. Sending SMS messages with a photo or file attachment

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Set up and customise the mobile device to meet needs***
2. ***Select and use applications and files on the mobile device***
3. ***Use tools and techniques to transfer data to and from mobile devices***
4. ***Optimise the performance of mobile devices***

Guided learning hours

It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 210 Using mobile IT devices
Learning outcomes and assessment criteria

Outcome 1 Set up and customise the mobile device to meet needs

The learner can:

1. *Describe the purpose of the different features and drawbacks of the mobile device*
2. *Describe different methods that can be used to access mobile networks*
3. *Prepare, set up and configure the mobile device for use*
4. *Select, use and customise interface features and settings to meet needs and improve efficiency*
5. *Describe any specific health and safety issues associated with the use of mobile devices*
6. *Apply guidelines and procedures for the use of mobile devices*

Outcome 2 Select and use applications and files on the mobile device

The learner can:

1. *Select and use applications and files on the mobile device for an appropriate purpose*
2. *Define file formats appropriate for mobile devices*
3. *Use software or tools to prepare or convert files to an appropriate format for mobile devices*
4. *Input data accurately into a mobile device*
5. *Organise, store and retrieve data efficiently on a mobile device*

Outcome 3 Use tools and techniques to transfer data to and from mobile devices

The learner can:

1. *Describe different types of secure connection methods that can be used between devices*
2. *Describe software requirements and techniques to connect and synchronise devices*
3. *Transfer information to and from mobile devices using secure connection procedures*
4. *Synchronise mobile device data with source data*
5. *Recognise copyright and other constraints on the use and transfer of information*
6. *Explain why it is important to stay safe, keep information secure and to respect others when using mobile devices*
7. *Keep information secure when using a mobile device*

Outcome 4 Optimise the performance of mobile devices

The learner can:

1. *Describe the factors that can affect performance of the mobile device and how to make improvements*
2. *Use appropriate techniques to optimise the performance of the mobile device*
3. *Describe problems that may occur with mobile devices and what causes them*
4. *Use an appropriate fault-finding procedure to identify and solve problems with the mobile device*

5. Describe when to try to solve a problem and where to get expert advice

Teaching 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.

Outcome 1 Set up and customise the mobile device to meet needs

The learner should be able to and understand:

Access mobile network:
- ***Connection protocols***
- ***VOIP, SMS***

Set up mobile device:
- ***Charging battery***
- ***Access (eg password, login)***
- ***SIM card, new connection (eg phone, Internet, cable)***
- ***Network settings***

Interface features:
- ***Display, menu, submenu, toolbar, icon, button, keypad, wheel***
- ***Start and shutdown***
- ***Shortcut keys, voice activation***

Device settings:
- ***Resolution (eg screen, image), sound (eg volume, ringtone), appearance (eg colour, theme)***
- ***User profile***

Guidelines and procedures:
- ***Set by: employer or organisation or centre***
- ***About: health and safety, security, copyright, data protection, child protection, obscenity, equal opportunities, access***

Outcome 2 Select and use applications and files on the mobile device

The learner should be able to and understand:

Mobile applications and files:
- ***Games and interactive material, documents, music files, video animations, image slideshows and presentations, emails, Internet pages, collaborative tools; PDF documents, Office documents, e-books, Flash animations***
- ***Naming protocols***
- ***Adding applications***

File formats:
- ***Naming protocols***
- ***File size***

Input data:

- *Touch screen, stylus, keypad, voice command*
- *Create products on the device (documents such as text notes or email, files such as sound recording, image or video capture)*

Store and retrieve data:

- *Files (eg create, name, open, save, save as, print, close, find), folders (eg create, name)*
- *Navigate (eg menu, tool bar, icon, scroll bar, button)*
- *Save to card, save to memory*

Outcome 3 Use tools and techniques to transfer data to and from mobile devices

The learner should be able to and understand:

Secure connection:

- *Password control, Bluetooth, infrared, cable, device pairing*
- *Synchronisation software, connection settings*

Transfer information:

- *Export, drag and drop, SMS, when transfer successful*
- *Change SIM card*

Synchronise mobile device:

- *Files, calendar, address book, tasks*
- *With laptop, desktop*

Copyright constraints:

- *Effect of copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism, permissions,*

Staying safe:

- *Protect personal information, avoid misuse of images, use appropriate language, respect confidentiality, use copy lists with discrimination*

Keep information secure:

- *Username and password/PIN selection and management, password strength*
- *How and when to change passwords*
- *Respect confidentiality, avoid inappropriate disclosure of information*

Outcome 4 Optimise the performance of mobile devices

The learner should be able to and understand:

Mobile device performance:

- *Battery life*
- *Application and file use*
- *Device maintenance*
- *Network availability, interference*

Maintain performance:

- *Carry out routine maintenance (battery charging, cleaning of handset), battery management*
- *Communication settings such as Bluetooth or Wi-Fi turned off when not in use*
- *Closing applications after use*

Fault-finding procedures:

- *Re-start procedures: soft and hard re-boot options and consequent issues relate to the new settings*
- *Manual/guide information accompanied with the device, online guidance; using help*

Expert advice:

- *Limits of own understanding and skills, help menus, manufacturer's guidelines*
- *How to follow advice, information needed by experts*
- *Use diagnostic tools and wizards*

Unit 211 Personal information management software

Level: ***2***
Credit value: ***2***

Unit aims
This is the ability to use software designed for the purpose of managing and organising contacts, appointments, tasks and notes. Software may also be termed Personal Planning software.

On completion of this unit a candidate should be able to use a range of personal information management tools and techniques to organise and prioritise their own time and manage multiple tasks and calendars

Example of context: Make one shared calendar for each sports team or club, and a separate calendar for private events; allow various levels of permissions for other users of personal calendars and tasks.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use calendars to schedule appointments and meetings***
2. ***Use a task list to prioritise activities***
3. ***Use an address book to store, organise and retrieve contact information***

Guided learning hours
It is recommended that 15 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 211 Personal information management software
Learning outcomes and assessment criteria

Outcome 1 Use calendars to schedule appointments and meetings

The learner can:

1. *Create, edit and delete multiple calendar entries*
2. *Arrange recurring appointments*
3. *Invite others to meetings and monitor attendance*
4. *Respond to meeting requests from others*
5. *Create reminders for calendar appointments and events*
6. *Locate, organise and display appointments and events as required*
7. *Import and export calendar data*
8. *Describe how to share calendars with other users*

Outcome 2 Use a task list to prioritise activities

The learner can:

1. *Create, edit and delete task information*
2. *Organise and display tasks, setting targets for completion*
3. *Monitor task progress and set reminders*
4. *Report on task status and activity*
5. *Use software features to work collaboratively on tasks with other users*

Outcome 3 Use an address book to store, organise and retrieve contact information

The learner can:

1. *Create, update and delete contact information*
2. *Locate, organise and display contact information efficiently*
3. *Create additional contact lists to separate work and leisure contacts*
4. *Select and export contact details for use in other applications*
5. *Create and modify a distribution list*
6. *Share contact information with others responsibly*
7. *Explain why it is important use personal data responsibly and safely*
8. *Describe why and how to keep contact information up to date*

Teaching 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.

Outcome 1 Use calendars to schedule appointments and meetings

The learner should be able to and understand:

Display appointments:
- ***On screen, for print***
- ***Display style***
- ***Filters, views, by category; customise calendar settings***
- ***Multiple calendars***
- ***Search and retrieve***
- ***Public calendars***

Invite to meetings:
- ***Check availability, notify participants; propose alternative times***
- ***Display other users' calendars***
- ***Identify conflicts and free time***

Create reminders:
- ***Set alarms; send reminders to mobile devices and message services; RSS feeds***

Import and export:
- ***iCalendar, vCalendar***
- ***Link tasks to calendar***
- ***Synchronise calendar with mobile device***

Share calendars:
- ***Multiple calendars, user permission levels, open source and online calendars***
- ***Subscribe to other calendars***
- ***Organise notes: By category, colour, date***

Outcome 2 Use a task list to prioritise activities

The learner should be able to and understand:

Organise tasks:
- ***By category, status, target date; assign and respond to task requests***
- ***Filters***

Work collaboratively:
- ***Multiple tasks, user permission levels***
- ***Composite tasks***

Task progress:
- ***Percentage completion***
- ***Postpone task***

Outcome 3 Use an address book to store, organise and retrieve contact information

The learner should be able to and understand:

Update contacts:
- ***Multiple entries for single person***
- ***Automatic updates***
- ***Assign category***

Organise contacts
- ***By category, name, company; customise display, selected fields***
- ***Filters***
- ***Multiple contacts***

Responsible use:
- ***Password protection***
- ***Respect confidentially***
- ***Public profiles***
- ***Trust, data protection***

Select and export contacts:
- ***Selected fields***
- ***Selected contacts***
- ***For transfer to mobile device, merge with other software***

Share contact information:
- ***Beam between mobile devices, vcard***

Unit 212 IT software fundamentals

Level: ***2***
Credit value: ***3***

Unit aims
This is the ability to decide which IT software application is appropriate to use to process different types of data, and to use a range of applications to produce and present information.

On completion of this unit a candidate should be able to select and use IT tools to develop and produce information independently for activities that are at times non-routine or unfamiliar. Any aspect that is unfamiliar will require support and advice from other people.

Examples of context: producing a business letter, creating a presentation with a sound track, working out a monthly budget and tracking spending against it, editing and searching customer records, editing a photo for a brochure or developing a multiple page website.

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Select and use appropriate software applications to meet needs and solve problems [UIS2:2]***
2. ***Enter, develop, combine and format different types of information to suit its meaning and purpose [DPC:1 < less images 1.4; numbers 1.5; graphs 1.7; records 1.8]***
3. ***Present information in ways that are fit for purpose and audience [DPC2:3]***
4. ***Evaluate the selection and use of IT tools and facilities to present information [DPC2:4]***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 212 IT software fundamentals
Learning outcomes and assessment criteria

Outcome 1 Select and use appropriate software applications to meet needs and solve problems [UIS2:2]

The learner can:

1. *Describe what types of information are needed*
2. *Select and use software applications to develop, produce and present different types of information to meet needs and solve problems [UIS2:1.3 part]*

Outcome 2 Enter, develop, combine and format different types of information to suit its meaning and purpose [DPC:1 < less images 1.4; numbers 1.5; graphs 1.7; records 1.8]

The learner can:

1. *Enter, organise, refine and format different types of information, applying editing techniques to meet needs [DPC2:1.1]*
2. *Use appropriate techniques to combine image and text components [DPC2:2.1]*
3. *Combine information of different forms or from different sources [DPC2:2.1]*
4. *Select and use appropriate page layout to present information effectively [DPC2:1.2]*

Outcome 3 Present information in ways that are fit for purpose and audience [DPC2:3]

The learner can:

1. *Work accurately and proof-read, using software facilities where appropriate [DCP2:3.1]*
2. *Identify inconsistencies or quality issues with the presentation of information*
3. *Produce information that is fit for purpose and audience using accepted layouts and conventions as appropriate [DPC2:3.2]*

Outcome 4 Evaluate the selection and use of IT tools and facilities to present information [DPC2:4]

The learner can:

1. *Review and modify work as it progresses to ensure the result is fit for purpose and audience and to inform future judgements [DPC2:4.2] (RL3)*
2. *Review the effectiveness of the IT tools selected to meet needs in order to improve future work [DPC2:4.1 and UIS2:2.1 part]*

Teaching 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.

Outcome 1 Select and use appropriate software applications to meet needs and solve problems [UIS2:2]

The learner should be able to and understand:

Software applications:

- ***Types: word processing, spreadsheet, graphics, Internet browser, e-mail, audio and video software***
- ***Use: open and close applications; switch between applications***

Types of information:

- ***Text, numbers, images, graphics, sound, data records***

Outcome 2 Enter, develop, combine and format different types of information to suit its meaning and purpose [DPC: 1 < less images 1.4; numbers 1.5; graphs 1.7; records 1.8]

The learner should be able to and understand:

Organise information:

- ***Headings, lists, tables, use of templates, sort, charts and graphs, records, simple calculations, structure of information, document layout***

Format information:

- ***Formatting techniques appropriate to the type of information, for example:***
  - ***Numbers: currency, percentages, number of decimal places, date, time, text wrap, row height, column width, gridlines, merged cells, cell borders***
  - ***Text: bullets, numbering, alignment, tabs, line spacing, colour, font, style, size***
- ***Images: size, position***
  - ***Tables: horizontal and vertical text alignment, merge and split cells, gridlines, borders, shading***

Editing techniques:

- ***Editing techniques appropriate to the type of information, for example:***
  - ***select, copy, cut, paste, undo, redo, drag and drop, find, replace, insert, delete, size, crop, position, change templates***

Combine text and images:

- ***Insert, size, position, captions, text alignment, text wrap, use of text boxes, behind, in front, grouping***

Combine information:

- ***Combine images with text (eg photo with caption)***
- ***presentation with audio and/or video***
- ***numbers with charts and graphs***
- ***text alignment, captions, text wrap***

- *behind, in front, grouping*

Page layout:

- *Size, orientation, margins, portrait, landscape, page breaks, page numbers, date and time, columns, header, footer*
- *Adjust page set up for printing*

Outcome 3 Present information in ways that are fit for purpose and audience [DPC2:3]

The learner should be able to and understand:

Work accurately and proof-read:

- *Ensure meaning is clear, seek views of others*
- *Check spelling, check calculations*
- *Ensure consistent layout, print preview*

Information fit for purpose:

- *Letter, memo, report, newsletter, poster, information sheet, webpage, multi-media presentation, budget, invoice, stock list, multi-page brochure, multi-entry catalogue*

Quality issues:

- *Formatting, page layout, structure, clarity, accuracy*

Outcome 4 Evaluate the selection and use of IT tools and facilities to present information [DPC2:4]

The learner should be able to and understand:

IT tools selection:

- *Time taken, convenience, cost, quality, accuracy*
- *Range of facilities, versatility, transferability of information into other formats*
- *Speed of Internet connection, time constraints of downloading large files*

Review and modify work:

- *Evaluate the quality of the information used, produce drafts, review against initial plans, check with intended audience*

Unit 213 Audio software

Level: ***2***
Credit value: ***3***

Unit aims
This is the ability to use a software application designed to record and edit audio sequences.

An intermediate user can select and use a wide range of intermediate audio software tools and techniques to record and edit audio sequences that are at times non-routine or unfamiliar.

Audio software tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions involved will at times be non-routine or unfamiliar;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and at times be multi-step;***
- ***the user will take some responsibility for inputting, manipulating and outputting the information.***

Examples of context: Recording pre-planned sound footage, downloading the footage to a computer, then editing to create a short sequence, add to a file of another application - word processing, video, spreadsheet, presentation, etc.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use audio hardware and software to capture sequences***
2. ***Use audio software tools and techniques to combine and edit sequences***
3. ***Play and present audio sequences***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 1 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 213 Audio software
Learning outcomes and assessment criteria

Outcome 1 Use audio hardware and software to capture sequences

The learner can:

1. ***Identify the combination of input device and audio software to use to capture information, to avoid any compatibility issues***
2. ***Select and use an appropriate combination of input device and audio software to record sequences***
3. ***Describe the impact file size and file format will have on saving sequences***
4. ***Identify when to use different types of information coding and compression***
5. ***Store and retrieve sequences using appropriate file formats and compression, in line with local guidelines and conventions where available***

Outcome 2 Use audio software tools and techniques to combine and edit sequences

The learner can:

1. ***Identify the footage to add, keep and remove***
2. ***Select and use appropriate audio software tools to mark-up and edit sequences***
3. ***Organise and combine information for sequences in line with any copyright constraints, including across different software***
4. ***Describe how copyright constraints affect use of own and others' information***

Outcome 3 Play and present audio sequences

The learner can:

1. ***Describe the features and constraints of playback software and display devices***
2. ***Select and use an appropriate combination of audio playback software and display device to suit the file format***
3. ***Identify the settings which could be adjusted to improve the quality of presentations***
4. ***Adjust playback and display settings to enhance the quality of the presentation***

Teaching 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.

Outcome 1 Use audio hardware and software to capture sequences

The learner should be able to and understand:

Audio/Video compatibility issues:

- ***Between built-in codec used by input device, available editing software, file formats***

Input devices:

- ***Video camera, microphone, Dictaphone, mobile phone***
- ***Difference between analogue and digital***
- ***Input techniques: copy and paste, file download (eg connect USB lead, drag and drop)***

File size:

- ***Small, medium, large***
- ***Link between size and quality***

File format:

- ***Proprietary formats supported by software used (eg QuickTime, RealPlayer, iTunes)***
- ***Container formats: Audio (eg WAV, XMF, AIFF); Audio/video (eg 3GP, AVI, MP4, OGG, MOV)***

Information coding and compression:

- ***Codec, compression, difference between lossy and lossless compression***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find, share), file size***
- ***Version control***
- ***Import data, export data***
- ***Folders (eg create, name)***

Outcome 2 Use audio software tools and techniques to combine and edit sequences

The learner should be able to and understand:

Sequences:

- ***Short (eg 2 mins), b&w, medium length (eg 10 mins, 30 mins)***

Marking-up and editing tools:

- ***Preset by software, key frames***
- ***Sequences: cut, copy, paste, sequence***

Combine information:

- ***Combine sound with images (eg dub or overlay sound track onto film sequence)***

Techniques:

- *Copy and paste, insert, screen grabs/shots, file download (eg connect USB lead, drag and drop), File Transfer Protocol (FTP)*

Forms of information:

- *Moving images*
- *Sound: pre-recorded, live*

Copyright constraints:

- *Effect of copyright law (eg on music downloads)*
- *Acknowledgment of sources, avoiding plagiarism, permissions*

Outcome 3 Play and present audio sequences

The learner should be able to and understand:

Features and constraints:

- *Software supported, memory, processing speed, screen resolution, data bandwidth, transmission speeds*

Display device:

- *PC, laptop, video camera, Dictaphone, mobile phone, handheld audio or video device (eg mp3 player, iPod)*

Audio/Video quality issues:

- *Volume sound (eg clicks, disjoints, noise)*

Adjust playback and display settings:

- *Playback controls (eg start, stop, fast forward, rewind, pause)*
- *Sound (eg volume, balance)*

Unit 214 Video software

Level: ***2***
Credit value: ***3***

Unit aims
This is the ability to use a software application designed to record and edit video sequences.

An intermediate user can select and use a wide range of intermediate video software tools and techniques to record and edit video sequences that are at times non-routine or unfamiliar.

Video software tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions involved will at times be non-routine or unfamiliar;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and at times be multi-step;***
- ***the user will take some responsibility for inputting, manipulating and outputting the information.***

Examples of context: Recording pre-planned video footage, downloading the footage to a computer, then editing to create a short sequence, including adding some background music or adding the to a file of another application - word processing, spreadsheet, presentation, etc.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use video hardware and software to capture sequences***
2. ***Use video software tools and techniques to combine and edit sequences***
3. ***Play and present video sequences***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***

- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 214 Video software
Learning outcomes and assessment criteria

Outcome 1 Use video hardware and software to capture sequences

The learner can:

1. ***Identify the combination of input device and audio software to use to capture information, to avoid any compatibility issues***
2. ***Select and use an appropriate combination of input device and audio software to record sequences***
3. ***Describe the impact file size and file format will have on saving sequences***
4. ***Identify when to use different types of information coding and compression***
5. ***Store and retrieve sequences using appropriate file formats and compression, in line with local guidelines and conventions where available***

Outcome 2 Use video software tools and techniques to combine and edit sequences

The learner can:

1. ***Identify the footage to add, keep and remove***
2. ***Select and use appropriate audio software tools to mark-up and edit sequences***
3. ***Organise and combine information for sequences in line with any copyright constraints, including across different software***
4. ***Describe how copyright constraints affect use of own and others' information***

Outcome 3 Play and present video sequences

The learner can:

1. ***Describe the features and constraints of playback software and display devices***
2. ***Select and use an appropriate combination of audio playback software and display device to suit the file format***
3. ***Identify the settings which could be adjusted to improve the quality of presentations***
4. ***Adjust playback and display settings to enhance the quality of the presentation***

Teaching 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.

Outcome 1 Use video hardware and software to capture sequences

The learner should be able to and understand:

Video compatibility issues:

- ***Between built-in codec used by input device, available editing software, file formats***

Input devices:

- ***Webcam, video camera, mobile phone***
- ***Difference between analogue and digital***
- ***Low and high resolution***
- ***Input techniques:***
  - ***Copy and paste, screen grabs/shots, file download (eg connect USB lead, drag and drop)***

File size:

- ***Small, medium, large***
- ***Link between size and quality (eg small – low resolution; large – high resolution)***

File format:

- ***Proprietary formats supported by software used (eg QuickTime, RealPlayer, iTunes)***
- ***Container formats:***
  - ***Audio (eg WAV, XMF, AIFF); Audio/video (eg 3GP, AVI, MP4, OGG, MOV)***

Information coding and compression:

- ***Codec, compression, difference between lossy and lossless compression***
- ***Video quality***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find, share), file size***
- ***Version control***
- ***Import data, export data***
- ***Folders (eg create, name)***

Outcome 2 Use video software tools and techniques to combine and edit sequences

The learner should be able to and understand:

Sequences:

- ***Short (eg 2 mins), b&w, medium length (eg 10 mins, 30 mins), colour***

Marking-up and editing tools:

- ***Preset by software, key frames***
- ***Sequences: cut, copy, paste, sequence***

Combine information:

- ***Combine images with sound (eg dub or overlay sound track onto film sequence)***

Techniques:

- *Copy and paste, insert, screen grabs/shots, file download (eg connect USB lead, drag and drop), File Transfer Protocol (FTP)*

Forms of information:

- *Forms of information:*
  - *moving images*
  - *sound: pre-recorded, live, web-streaming*

Copyright constraints:

- *Effect of copyright law (eg on music downloads or use of other people's images)*
- *Acknowledgment of sources, avoiding plagiarism, permissions*

Outcome 3 Play and present video sequences

The learner should be able to and understand:

Features and constraints:

- *Software supported, memory, processing speed, screen resolution, data bandwidth, transmission speeds*

Display device:

- *PC, laptop, video camera, mobile phone, handheld video device (eg mp3 player, iPod)*

Audio/Video quality issues:

- *High or low contrast, volume, visual (eg jerkiness, dropping frames, break-up, freezes, blurriness, pixilation), sound (eg clicks, disjoints, noise)*

Adjust playback and display settings:

- *Playback controls (eg start, stop, fast forward, rewind, pause)*
- *Sound (eg volume, balance)*
- *Screen size (eg thumbnail, quarter screen, full screen)*
- *Visual (eg contrast, brightness, colour/b&w)*

Unit 215 Bespoke software

Level: ***2***
Credit value: ***3***

Unit aim
This is the ability to select and use a suitable bespoke software application to carry out an appropriate data processing task. It includes understanding the capabilities of the software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the software application appropriately and effectively. On completion of this unit a candidate should be able to select and use a wide range of intermediate bespoke software tools and techniques for information that is at times non-routine or unfamiliar. Any aspect that is unfamiliar may require support and advice from others.

Bespoke software tools and techniques will be defined as 'intermediate' because the:
- ***software tools and functions involved will at times be non-routine or unfamiliar;***
- ***choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and at times be multi-step; and***
- ***user will take some responsibility for inputting, manipulating and outputting the information.***

Learning outcomes
There are three learning outcomes to this unit.

The learner will:
1. ***Input and combine information using bespoke applications***
2. ***Use appropriate structures to organise and retrieve information efficiently***
3. ***Use the functions of the software effectively to process and present information***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 215 Bespoke software
Learning outcomes and assessment criteria

Outcome 1 Input and combine information using bespoke applications

The learner can:

1. ***Input relevant information accurately so that it is ready for processing***
2. ***Select and use appropriate techniques to link and combine information of different forms or from different sources within the software***
3. ***Respond appropriately to data entry error messages***

Outcome 2 Use appropriate structures to organise and retrieve information efficiently

The learner can:

1. ***Describe what functions to apply to structure and layout information effectively***
2. ***Select and use appropriate structures and/or layouts to organise information***
3. ***Apply local and/or legal guidelines and conventions for the storage and use of data where available***

Outcome 3 Use the functions of the software effectively to process and present information

The learner can:

1. ***Select and use appropriate tools and techniques to edit, process and format information***
2. ***Check information meets needs, using IT tools and making corrections as necessary***
3. ***Select and use appropriate methods to present information***

Teaching 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.

Outcome 1 Input and combine information using bespoke applications

The learner should be able to and understand:

Types of bespoke information:

- ***Information will vary according to the software for example:***
  - ***text, numbers, photos, scanned images, graphic elements, digital recorded sound, graphs, charts, tables***

Inputting information:

- ***Inputting tools and techniques will vary according to the technology being used for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***
  - ***Combining information techniques:***
  - ***Insert, size, position, wrap, order, group, import data, links and references to external data***

Outcome 2 Use appropriate structures to organise and retrieve information efficiently

The learner should be able to and understand:

Structures and layouts:

- ***Apply and change existing templates, set up templates for inputting or retrieving information, apply or change existing styles***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application***

Outcome 3 Use the functions of the software effectively to process and present information

The learner should be able to and understand:

Editing, analysis and formatting techniques:

- ***Techniques will vary according to the software and task, for example:***
  - ***Editing: select, insert, delete, cut, copy, paste, drag and drop, find, replace, page layout, labelling, alignment, orientation, colour, resolution, size, pitch***
  - ***Analysis: design queries, mathematical, logical or statistical functions***
  - ***Formatting: characters, lines, paragraphs, pages, file type***

Check information:

- ***Checks will vary according to the type of information and software, but could include:***
  - ***spell check, grammar check***
  - ***accuracy of figures***
  - ***labelling and size of images***
  - ***volume of sound***
  - ***quality of images and sound***
  - ***line, paragraph and page breaks fall appropriately***
  - ***formatting is consistent***
  - ***the use of headings and subheadings aid clarity***
  - ***the placing of images or sound clips***

Unit 216 Specialist software

Level: ***2***
Credit value: ***3***

Unit aims
This is the ability to select and use a suitable specialist software application to carry out an appropriate data processing task. It includes understanding the capabilities of the software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the software application appropriately and effectively.

On completion of this unit a candidate should be able to select and use a wide range of intermediate specialist software tools and techniques for information that is at times non-routine or unfamiliar. Any aspect that is unfamiliar may require support and advice from others.

Specialist software tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions involved will at times be non-routine or unfamiliar;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and at times be multi-step; and***
- ***the user will take some responsibility for inputting, manipulating and outputting the information.***

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Input and combine information using specialist applications***
2. ***Use appropriate structures to organise and retrieve information efficiently***
3. ***Use the functions of the software effectively to process and present information***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***

- ***scenario***

Unit 216 Specialist software
Learning outcomes and assessment criteria

Outcome 1 Input and combine information using specialist applications

The learner can:

1. ***Input relevant information accurately so that it is ready for processing***
2. ***Select and use appropriate techniques to link and combine information of different forms or from different sources within the software***
3. ***Respond appropriately to data entry error messages***

Outcome 2 Use appropriate structures to organise and retrieve information efficiently

The learner can:

1. ***Describe what functions to apply to structure and layout information effectively***
2. ***Select and use appropriate structures and/or layouts to organise information***
3. ***Apply local and/or legal guidelines and conventions for the storage and use of data where available***

Outcome 3 Use the functions of the software effectively to process and present information

The learner can:

1. ***Select and use appropriate tools and techniques to edit, process and format information***
2. ***Check information meets needs, using IT tools and making corrections as necessary***
3. ***Select and use appropriate methods to present information***

Teaching 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.

Outcome 1 Input and combine information using specialist applications

The learner should be able to and understand:

Types of bespoke information:

- ***Information will vary according to the software for example:***
  - ***text, numbers, photos, scanned images, graphic elements, digital recorded sound, graphs, charts, tables***

Inputting information:

- ***Inputting tools and techniques will vary according to the technology being used for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***

Combining information techniques:

- ***Insert, size, position, wrap, order, group***
- ***Import data***
- ***Links and references to external data***

Outcome 2 Use appropriate structures to organise and retrieve information efficiently

The learner should be able to and understand:

Structures and layouts:

- ***Apply and change existing templates, set up templates for inputting or retrieving information, apply or change existing styles***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application***

Outcome 3 Use the functions of the software effectively to process and present information

The learner should be able to and understand:

Editing, analysis and formatting techniques:

- ***Techniques will vary according to the software and task, for example:***
  - ***Editing: select, insert, delete, cut, copy, paste, drag and drop, find, replace, page***
  - ***layout, labelling, alignment, orientation, colour, resolution, size, pitch***
  - ***Analysis: design queries, mathematical, logical or statistical functions***
  - ***Formatting: characters, lines, paragraphs, pages, file type***

Check information:

Checks will vary according to the type of information and software, but could include:

- ***spell check, grammar check***
- ***accuracy of figures***
- ***labelling and size of images, quality of images and sound,***
- ***the placing of images or sound clips, volume of sound***
- ***line, paragraph and page breaks fall appropriately***
- ***formatting is consistent***
- ***the use of headings and subheadings aid clarity***

Presentation methods:

- ***Methods will vary according to the software and task, for example:***
  - ***on screen display, publishing on a web site, hard copy print out, digital file***
- ***organisational house style, branding***

Unit 217 Computerised accounting software

Level: ***2***
Credit value: ***3***

Unit aims
This is the ability to select and use a computerised accounting or bookkeeping software application to input and process data for orders and invoices, receipts and payments and prepare management and period end reports.

On completion of this unit a candidate should be able to select and use a wide range of intermediate accounting software tools and techniques for information that is at times non-routine or unfamiliar.

Accounting software tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions involved will at times be non-routine or unfamiliar;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and at times be multi-step;***
- ***the user will take some responsibility for inputting, manipulating and outputting the information.***

Examples of context: Creating and editing customer or supplier records; update budgets, run month end routines; link transactions to internet banking, stock control system or online ordering system

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Access, enter and edit accounting information***
2. ***Select and use tools and techniques to process business transactions***
3. ***Produce accounting documents and summary reports to meet requirements***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***

- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 217 Computerised accounting software
Learning outcomes and assessment criteria

Outcome 1 Access, enter and edit accounting information

The learner can:

1. *Describe the sources and characteristics of accounting data*
2. *Set up and create new accounting data records accurately to meet requirements*
3. *Locate and display accounting data records to meet requirements*
4. *Check data records meet needs using IT tools, making corrections as necessary*
5. *Respond appropriately to data entry error messages*
6. *Describe the risks to data security and procedures used for data protection*
7. *Apply local and/or legal guidelines for the storage and use of data*

Outcome 2 Select and use tools and techniques to process business transactions

The learner can:

1. *Select and use appropriate tools and techniques to enter and process transactions*
2. *Review transaction process and identify any errors*
3. *Respond appropriately to any transaction errors and problems*
4. *Select and use appropriate tools and techniques to process period end routines*

Outcome 3 Produce accounting documents and summary reports to meet requirements

The learner can:

1. *Describe what information is required and how to present it*
2. *Prepare and generate accounting documents*
3. *Prepare and generate management reports as required*
4. *Import and export data and link to other systems and software*

Teaching 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.

Outcome 1 Access, enter and edit accounting information

The learner should be able to and understand:

Characteristics of accounting data:
- ***Unique references***
- ***Codes***
- ***Statutory requirements***
- ***Editing restrictions***

Enter accounting data:
- ***Use of data entry form and wizards***
- ***Add/amend record (customer record, supplier record, nominal ledger, stock record)***

Locate and display:
- ***Search, sort, print records, filters***

Check data:
- ***Spell check, format, consistency***
- ***Remove duplication***
- ***Verify data; edit details***
- ***Check calculations, check coding***
- ***File maintenance, check others' work***

Data entry errors:
- ***Due to field size, data type, validation checks***
- ***Duplicate records, format, using help***
- ***Data that does not fit parameters, alerts, reminders***
- ***Problems with forms***

Security risks and procedures:
- ***Access control***
- ***Authorised use, confidentiality, personal data***
- ***Password protection and management, user authentication***

Guidelines for the storage and use of data:
- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application***

Outcome 2 Select and use tools and techniques to process business transactions

The learner should be able to and understand:

Process transactions:

- ***Number of items: single items, batches***
- ***Types of transactions:***
  - ***post invoice, receipts, payments, journal entries***
  - ***number of items: single items, batches***
  - ***from: bank statement, cheque book, paying-in book***
- ***Create, copy, check, save***

Transaction errors and problems:

- ***Duplication, accuracy, limits of own responsibility, process for reporting errors and problems***

Period end:

Will vary according to task but may include:
-month end, post depreciation, budgets, standing orders

Outcome 3 Produce accounting documents and summary reports to meet requirements

The learner should be able to and understand:

Accounting documents:

- ***Will vary according to task, but may include for example:***
  - ***invoice, sales order, purchase order, statement***
- ***To screen, printed, for e-mail***

Management reports:

- ***Will vary according to task, but may include for example:***
  - ***audit trail, trial balance***
  - ***customer activity; day book, aged creditor/debtor analysis***

Export and link data:

- ***For mail merge***
- ***Spreadsheet analysis***
- ***Requirements for internet banking***
- ***Stock control system***
- ***Online ordering system***
- ***Budget update***
- ***Other file formats (eg csv, xls)***

Unit 218 Data management software

Level: ***2***
Credit value: ***3***

Unit aim
This is the ability to use a software application designed to store and retrieve data needed for a variety of business functions. It also includes an understanding of the features and facilities of the software and the purpose for which the data is stored.

On completion of this unit a candidate should be able to select and use intermediate data management software tools and techniques to:

- ***enter information into data management systems that is at times non-routine or unfamiliar;***
- ***retrieve information using multiple selection criteria; and***
- ***produce customised reports from the system.***

The data management system tools, functions and techniques will be described as 'intermediate' because the:

- ***software tools and functions involved will at times be non-routine or unfamiliar; and***
- ***choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements.***

Examples of context: Setting up a new query to interrogate a CRM system and output selected records to another application

Learning outcomes
There are two learning outcomes to this unit.

The learner will:

1. ***Enter, edit and maintain data records in a data management system***
2. ***Retrieve and display data records to meet requirements***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 218 Data management software
Learning outcomes and assessment criteria

Outcome 1 Enter, edit and maintain data records in a data management system

The learner can:

1. ***Describe the risks to data security and procedures used for data protection***
2. ***Enter data accurately into groups of records to meet requirements***
3. ***Locate and amend data associated with groups of records***
4. ***Check data records meet needs, using IT tools and making corrections as necessary***
5. ***Respond appropriately to data entry and other error messages***
6. ***Apply local and/or legal guidelines for the storage and use of data where available***

Outcome 2 Retrieve and display data records to meet requirements

The learner can:

1. ***Identify what queries and reports need to be run to output the required information***
2. ***Select and use queries to search for and retrieve information to meet given requirements***
3. ***Create and view reports to output information from the system to meet given requirements***

Teaching 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.

Outcome 1 Enter, edit and maintain data records in a data management system
The learner should be able to and understand:

Benefits of data management system:

- ***Accessible, reliable, rapid access***
- ***Shared view, up-to-date, accurate, secure***
- ***Simplifies data handling***

Enter data:

- ***Use of data entry form, create new record, add record to table***
- ***Select and update fields, groups of records***

Amend data records:

- ***Find, search and replace***
- ***Edit record***
- ***Sort, filter, use wildcards and search operators***
- ***Category***

Check data records:

- ***Spell check, format, accuracy, consistency, remove duplication***
- ***Verify data, data validation techniques***
- ***Record housekeeping***

Error messages:

- ***Due to field size, data type, validation checks***
- ***Duplicate records, format***
- ***Using help***
- ***System access***
- ***Security risks and procedures:***
- ***Access control***
- ***Authorised use, confidentiality, personal data, password protection and management, user authentication***

Guidelines for data storage and use:

- ***Set by employer or organisation or centre***
- ***Topics covered: security, backup, data format, compliance and reporting, data protection, confidentiality***

Outcome 2 Retrieve and display data records to meet requirements
The learner should be able to and understand:

Search and retrieve:

- ***Alphanumeric sort, filter, single criteria, multiple criteria, save queries and output***

Reports:

- ***Standard reports, customised reports***
- ***Reports with multiple parameters***

Unit 219 Database software

Level: ***2***
Credit value: ***4***

Unit aim
This is the ability to use a software application designed to organise and store structured information and generate reports.

On completion of this unit a candidate should be able select and use intermediate database software tools and techniques to:

- ***enter information into databases, that is at times non-routine or unfamiliar;***
- ***retrieve information by creating queries using multiple selection criteria; and***
- ***produce reports by setting up menus or short cuts.***

They will also be able to create and modify single table, non-relational databases. Any aspects that are unfamiliar may require support and advice from others.

Database tools, functions and techniques will be described as 'intermediate' because the:

- ***software tools and functions involved will at times be non-routine or unfamiliar; and***
- ***choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements.***

Examples of context: Typical 'more complex' reports may be about – sales activities, order details or project management.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Create and modify non-relational database tables***
2. ***Enter, edit and organise structured information in a database***
3. ***Use database software tools to run queries and produce reports***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 219 Database software
Learning outcomes and assessment criteria

Outcome 1 Create and modify non-relational database tables

The learner can:

1. ***Identify the components of a database design***
2. ***Describe the field characteristics for the data required***
3. ***Create and modify database tables using a range of field types***
4. ***Describe ways to maintain data integrity***
5. ***Respond appropriately to problems with database tables***
6. ***Use database tools and techniques to ensure data integrity is maintained***

Outcome 2 Enter, edit and organise structured information in a database

The learner can:

1. ***Create forms to enter, edit and organise data in a database***
2. ***Select and use appropriate tools and techniques to format data entry forms***
3. ***Check data entry meets needs, using IT tools and making corrections as necessary***
4. ***Respond appropriately to data entry errors***

Outcome 3 Use database software tools to run queries and produce reports

The learner can:

1. ***Create and run database queries using multiple criteria to display or amend selected data***
2. ***Plan and produce database reports from a single table non-relational database***
3. ***Select and use appropriate tools and techniques to format database reports***
4. ***Check reports meet needs, using IT tools and making corrections as necessary***

Teaching 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.

Outcome 1 Create and modify non-relational database tables

The learner should be able to and understand:

Database design: • What types of information are stored

- ***Use of data entry form, routine queries***
- ***How data is structured in a single table non-relational database***
- ***Use of indexes and key field to organise data***

Data integrity:

- ***Unique not null primary key***
- ***Field characteristics***
- ***Data validation, consistency, completeness, accuracy***
- ***Effect of malicious or accidental alteration***
- ***Methods for maintaining integrity of existing data in a single table non-relational database***
- ***How field characteristics contribute to data validation***

Modify database table:

- ***Add, amend, delete field***
- ***Field characteristics***

Field types:

- ***Data type, field name, field size, format, validation***
- ***Primary key***

Problems with database tables:

- ***Redundant data, duplication, table structure, field characteristics and validation***
- ***Sources of help***

Outcome 2 Enter, edit and organise structured information in a database

The learner should be able to and understand:

Enter, edit and organise data:

- ***Select and update fields***
- ***Create new records***
- ***Locate and amend records: using wildcards, search operators***
- ***Error checking***
- ***Data validation***

Format data entry forms:

- ***Field characteristics and layout, tables, colour, lookups***

Check data entry:

- ***Spell check, format, accuracy, consistency, completeness, validity***
- ***Security***

Data entry errors:

- *Due to field size, data type*
- *Validation checks*
- *Using help: deal with data that does not fit parameters, alerts, reminders*
- *Problems with forms*

Outcome 3 Use database software tools to run queries and produce reports
The learner should be able to and understand:

Database queries:

- *Alphanumeric sort, filter, single criteria, multiple criteria;*
- *Save queries and output*

Database reports:

- *Using menus, wizards or shortcuts*
- *Selected fields, selected records*

Formatting database reports:

- *Data fields*
- *Page and section layout*
- *Add text or images*
- *Adjust page setup for printing*

Check reports:

- *Completeness, accuracy, security, sorting, formatting, layout*

Unit 220 Design software

Level: ***2***
Credit value: ***4***

Unit aims
This is the ability to use a software application designed to create, modify and layout artwork for display in print or on a screen (eg vector graphics for design and drawing; raster graphics for photo manipulation or illustration).

On completion of this unit a candidate should be able to select and use a range of intermediate design software tools and techniques to produce at times non-routine or unfamiliar designs.

Design software tools and techniques will be defined as 'intermediate' because:

- ***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.***

Examples of context: work flow process maps, drawings or edited photos for a website.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Obtain, insert and combine information for designs***
2. ***Use design software tools to create, manipulate and edit designs***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***

- ***scenario***

Unit 220 Design software
Learning outcomes and assessment criteria

Outcome 1 Obtain, insert and combine information for designs

The learner can:

1. ***Describe what designs are needed***
2. ***Obtain, input and prepare designs to meet needs***
3. ***Describe what copyright and other constraints apply to the use of designs***
4. ***Use appropriate techniques to organise and combine information of different types or from different sources***
5. ***Describe the context in which the designs will be used***
6. ***Describe what file format to use for saving designs to suit different presentation methods***
7. ***Store and retrieve files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use design software tools to create, manipulate and edit designs

The learner can:

1. ***Identify what technical factors affecting designs need to be taken into account and how to do so***
2. ***Select and use suitable techniques to create designs***
3. ***Use guide lines and dimensioning tools appropriately to enhance precision***
4. ***Select and use appropriate tools and techniques to manipulate and edit for designs***
5. ***Check designs meet needs, using IT tools and making corrections as necessary***
6. ***Identify and respond to quality problems with designs to make sure that they meet needs***

Teaching 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.

Outcome 1 Obtain, insert and combine information for designs

The learner should be able to and understand:

Designs:

- ***Designs 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 (eg 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 designs:

- ***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 designs:

- ***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 (eg raw bitmaps, bmp and compressed formats jpeg and png)***
  - ***Vector graphics (eg svg, wmf, eps, ai)***
  - ***Open formats (eg html, odf, PDF and rtf)***
  - ***Proprietary formats (eg pub and qxd)***
- ***Method of compression (lossy, non-lossy)***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find, share), file size***
- ***Version control***
- ***Import data, export data***
- ***Folders (eg create, name)***

Outcome 2 Use design software tools to create, manipulate and edit designs

The learner should be able to and understand:

Technical factors affecting designs:

- ***Page or canvas size***
- ***Colour mode***
- ***File size and format***
- ***Difference between screen and print resolution***

Create designs:

- ***Draw basic shapes and adjust properties (eg 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 designs:

- ***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 designs:

- ***Will vary according to the content, for example:***
  - ***levels, contrast, resolution***

Unit 221 Imaging software

Level: ***2***
Credit value: ***4***

Unit aims
This is the ability to use a software application designed to create, modify and layout images for display in print or on a screen (eg vector graphics for design and drawing; raster graphics for photo manipulation or illustration).

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.

Imaging software tools and techniques will be defined as 'intermediate' because:

- ***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.***

Examples of context: work flow process maps, drawings or edited photos for a website.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Obtain, insert and combine information for images***
2. ***Use imaging software tools to create, manipulate and edit images***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***

- ***scenario***

Unit 221 Imaging software
Learning outcomes and assessment criteria

Outcome 1 Obtain, insert and combine information for images

The learner can:

1. ***Describe what images are needed***
2. ***Obtain, input and prepare images to meet needs***
3. ***Describe what copyright and other constraints apply to the use of images***
4. ***Use appropriate techniques to organise and combine information of different types or from different sources***
5. ***Describe the context in which the images will be used***
6. ***Describe what file format to use for saving images to suit different presentation methods***
7. ***Store and retrieve files effectively, in line with local guidelines and conventions where available***

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

The learner can:

1. ***Identify what technical factors affecting images need to be taken into account and how to do so***
2. ***Select and use suitable techniques to create images***
3. ***Use guide lines and dimensioning tools appropriately to enhance precision***
4. ***Select and use appropriate tools and techniques to manipulate and edit for images***
5. ***Check images meet needs, using IT tools and making corrections as necessary***
6. ***Identify and respond to quality problems with images to make sure that they meet needs***

Teaching 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.

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 (eg 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 (eg raw bitmaps, bmp and compressed formats jpeg and png)***
  - ***Vector graphics (eg svg, wmf, eps, ai)***
  - ***Open formats (eg html, odf, PDF and rtf)***
  - ***Proprietary formats (eg pub and qxd)***
- ***Method of compression (lossy, non-lossy)***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find, share), file size***
- ***Version control***
- ***Import data, export data***
- ***Folders (eg create, name)***

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 (eg 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***

Unit 222 Desktop publishing software

Level: *2*
Credit value: *4*

Unit aims
This is the ability to use desktop publishing software designed to combine and manipulate text, image and graphic elements in layouts appropriate for subsequent publication to screen or print.

On completion of this unit a candidate should be able to select and use a wide range of intermediate desktop publishing software tools and techniques effectively to produce publications that are at times non-routine or unfamiliar.

Publication tools and techniques will be described as 'intermediate' because:

- ***the software tools and functions used will be at times non-routine or unfamiliar;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements; and***
- ***the user will take some responsibility for inputting, structuring, editing and presenting the information, which at times may be non-routine or unfamiliar.***

Examples of context: Typical documents may include – a newsletter or e-bulletin, illustrated brochure, price list.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Select and use appropriate designs and page layouts for publications***
2. ***Input and combine text and other information within publications***
3. ***Use desktop publishing software techniques to edit and format publications***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 222 Desktop publishing software
Learning outcomes and assessment criteria

Outcome 1 Select and use appropriate designs and page layouts for publications

The learner can:

1. *Describe what types of information are needed*
2. *Describe how to change page design and layout to increase effectiveness of a publication*
3. *Select, change and use an appropriate page design and layout for publications in line with local guidelines, where relevant*
4. *Select and use appropriate media for the publication*

Outcome 2 Input and combine text and other information within publications

The learner can:

1. *Find and input information into publications so that it is ready for editing and formatting*
2. *Organise and combine information for publications in line with any copyright constraints, including importing information produced using other software*
3. *Describe how copyright constraints affect use of own and others' information*
4. *Describe which file format to use for saving designs and images*
5. *Store and retrieve publication files effectively, in line with local guidelines and conventions where available*

Outcome 3 Use desktop publishing software techniques to edit and format publications

1. *Identify what editing and formatting to use for the publication*
2. *Select and use appropriate techniques to edit publications and format text*
3. *Manipulate images and graphic elements accurately*
4. *Control text flow within single and multiple columns and pages*
5. *Check publications meet needs, using IT tools and making corrections as necessary*
6. *Identify and respond to quality problems with publications to make sure they meet needs*

Teaching 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.

Outcome 1 Select and use appropriate designs and page layouts for publications

The learner should be able to and understand:

Types of information:
- ***Text, images, graphics, video, sound***

Page design and layout:
- ***Organisation of information, size, white space, columns, consistency, orientation, proportion***

Local guidelines:
- ***Templates, house style, branding, publication guidelines***
- ***Existing styles and schemes, refinements to styles and schemes***

Publication media:
- ***Web, document, multimedia***

Outcome 2 Input and combine text and other information within publications

The learner should be able to and understand:

Input information:
- ***Using keyboard, mouse, scanner, voice recognition, touch screen, stylus***

Combine information for publications:
- ***Combine images with text and graphic elements (eg borders, lines, panels, shading, logos)***
- ***Import information produced using other software***
- ***Reference external information with hyperlinks, object linking or embedding***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

File formats for designs and 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 (eg raw bitmaps, bmp and compressed formats jpeg and png)***
  - ***Vector graphics (eg svg, wmf, eps, ai)***

Store and retrieve:
- ***Files (eg create, name, open, save, save as, print, close, find, share), file size***

- ***Version control***
- ***Import/export***
- ***Folders (eg create, name)***

Outcome 3 Use desktop publishing software techniques to edit and format publications

The learner should be able to and understand:

Edit publications:
- ***Drag and drop, find, replace, undo redo, size, crop and position***
- ***Use layout guides***

Format text:
- ***Existing styles and schemes for font (typeface), size, orientation, colour, alignment***

Manipulate images and graphic elements:
- ***Size, crop, position, maintain proportion, border***

Control text flow:
- ***In columns, around images and graphic elements, between pages***

Check publications:
- ***Spell check, grammar check, word count***
- ***Completeness, accuracy, orientation, layout, text alignment and formatting***

Quality problems with publications:
- ***Will vary according to the content, for example:***
  - ***text (eg colour, size, style), images (eg orientation, size, position, cropping)***

Unit 223 Drawing and planning software

Level: ***2***
Credit value: ***3***

Unit aims
This is the ability to use software designed for producing 2D drawings or plans, such as flowcharts, mindmaps and technical drawings.

On completion of this unit a candidate should be able to select and use intermediate tools and techniques to produce drawings and plans that are at times multi-step or non-routine. Any aspects that are unfamiliar may require support and advice.

2D drawing and planning software tools and techniques will be described as 'intermediate' because:

- ***the software tools and functions used will be at times non-routine or unfamiliar;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements; and***
- ***the user will take some responsibility for inputting, structuring, editing and presenting the information, which at times may be non-routine or unfamiliar.***

Examples of context: A mind map of pages for a company website; a company organisation chart or a flow chart to illustrate a business process

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Input, organise and combine information for drawings or plans***
2. ***Use tools and techniques to edit, manipulate, format and present drawings or plans***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***

- ***scenario***

Unit 223 Drawing and planning software
Learning outcomes and assessment criteria

Outcome 1 Input, organise and combine information for drawings or plans

The learner can:

1. *Identify what types of shapes and other elements will be needed*
2. *Review templates and describe how they need to be changed to meet needs*
3. *Select, input and use the appropriate shapes to meet needs, including importing shapes from other sources*
4. *Select, adapt and use appropriate templates or blank documents*
5. *Identify what copyright constraints apply to the use of shapes or other elements*
6. *Combine information for drawings or plans including importing information produced using other software*
7. *Store and retrieve drawing files effectively, in line with local guidelines and conventions where available*

Outcome 2 Use tools and techniques to edit, manipulate, format and present drawings or plans

The learner can:

1. *Identify what drafting guides to use so that the shapes and other elements are appropriately prepared*
2. *Select and use appropriate software tools to manipulate and edit shapes and other elements with precision*
3. *Select and use appropriate software tools to format shapes and other elements, including applying styles and colour schemes*
4. *Check drawings or plans meet needs, using IT tools and making corrections as necessary*
5. *Identify and respond to any quality problems with drawings or plans to make sure they meet needs*
6. *Select and use appropriate presentation methods and accepted page layouts*

Teaching 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.

Outcome 1 Input, organise and combine information for drawings or plans

The learner should be able to and understand:

Shapes and other elements:

- ***Shapes will vary according to the required outcome, for example:***
  - ***flow chart shapes, building plan shapes, audit***
    - ***Other elements: graphic elements (eg lines, arrows, borders, backgrounds, clip art), text, numbers***

Input information:

- ***Inputting tools and techniques will vary according to the technology being used, for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***

Templates and blank documents:

- ***Blank documents***
- ***Existing templates, adapt templates, create new templates***
- ***Working from an example document***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Combine information:

- ***Insert, size, position, wrap, order, group***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find, share), file size***
- ***Version control***
- ***Import/export***
- ***Folders (eg create, name)***

Outcome 2 Use tools and techniques to edit, manipulate, format and present drawings or plans

The learner should be able to and understand:

Drafting guides:

- ***Grids, snap to grid, snap to shape, rulers, guidelines***

Manipulate and edit shapes and other elements:

Will vary, for example:

- ***Edit: select, insert, delete, cut, copy, paste, drag and drop, find, replace***
- ***Text: font, colour, alignment***
- ***Shapes: size, colour, orientation, connections to other shapes and elements, add labels***

Format shapes and other elements:

- ***Will vary, for example:***
  - ***text (eg font, paragraphs, text block, tabs, bullets)***
  - ***lines (eg width, length, colour, endings, beginnings)***
  - ***drawing elements (eg fill, shadow, corners)***
  - ***connections between shapes and other elements***
- ***Protection: length, width, axis***
- ***Behaviour: interaction, selection highlighting***

Check drawings and plans:

- ***Spell check, grammar check***
- ***Accuracy of numbers***
- ***Labelling and size of shapes, connections between shapes and other elements***

Quality problems with drawings and plans:

- ***Will vary according to the content, for example:***
  - ***text (eg formatting, styles, positioning)***
  - ***shapes (eg size, position, orientation)***
  - ***other elements (eg scale, thickness, colour, connections) page layout***

Presentation methods:

- ***Will vary according to the task, for example:***
  - ***on screen display, publishing on a web site, hard copy print out, digital file***
- ***Organisational house style, branding***

Unit 224 Multimedia software

Level: ***2***
Credit value: ***4***

Unit aims
This is the ability to use multimedia software designed to combine, manipulate and animate a variety of objects and data types in layouts appropriate for subsequent production to screen. In general, multimedia includes a combination of text, audio, still images, animation, video, and interactive content.

On completion of this unit a candidate should be able to select and use a wide range of intermediate multimedia tools and techniques effectively to produce publications that are at times non-routine or unfamiliar.

Publication tools and techniques will be described as 'intermediate' because:

- ***the software tools and functions used will be at times non-routine or unfamiliar;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements; and***
- ***the user will take some responsibility for inputting, structuring, editing and presenting the information, which at times may be non-routine or unfamiliar.***

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Plan the content and organisation of multimedia products to meet needs***
2. ***Obtain, input and combine content to build multimedia outcomes***
3. ***Use multimedia software tools to edit and format multimedia content to meet requirements***
4. ***Play and present multimedia outcomes***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 224 Multimedia software
Learning outcomes and assessment criteria

Outcome 1 Plan the content and organisation of multimedia products to meet needs

The learner can:

1. ***Describe the type of multimedia outcome needed and the specification that it must meet***
2. ***Select and use appropriate techniques to plan and communicate the content, design and layout of multimedia products***
3. ***Identify how the different elements of the content will be sourced and how they will relate in the design layout***
4. ***Plan the use of interactive features and transitions to meet needs***
5. ***Describe how copyright and other constraints affect use of own and others' information***

Outcome 2 Obtain, input and combine content to build multimedia outcomes

The learner can:

1. ***Select and use an appropriate combination of input device, software and input techniques to obtain and input relevant content for multimedia outcomes***
2. ***Combine information of different types or from different sources for multimedia outcomes***
3. ***Describe the file format and storage media to use***
4. ***Store and retrieve multimedia files effectively, in line with local guidelines and conventions where available***

Outcome 3 Use multimedia software tools to edit and format multimedia content to meet requirements

The learner can:

1. ***Select and use appropriate techniques to edit and format multimedia outcomes***
2. ***Manipulate images and graphic elements accurately***
3. ***Check multimedia outcomes meet needs, using IT tools and making corrections as necessary***
4. ***Adjust outcomes in response to any identified quality problems***

Outcome 4 Play and present multimedia outcomes

The learner can:

1. ***Describe what combination of display device and software to use for displaying different multimedia file formats***
2. ***Select and use appropriate software for displaying multimedia outcomes***
3. ***Select and use appropriate navigation techniques and playback controls to suit the files***
4. ***Adjust the display settings of the software and display device to present outcomes effectively***

Teaching 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.

Outcome 1 Plan the content and organisation of multimedia products to meet needs

The learner should be able to and understand:

Plan and communicate:
- ***Flow chart, storyboard, sketches***

Multimedia outcome:
- ***Website, CD ROM, animation sequence, presentation***

Specification:
- ***No of pages, features, audience, types of content, interactive elements***

Interactive features and transitions:
- ***Menus, submenus, buttons, links, pop-ups, video clips, sound clips***

Design layout:
- ***Organisation of information, size, frames, orientation, consistency***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Outcome 2 Obtain, input and combine content to build multimedia outcomes

The learner should be able to and understand:

Input device:
- ***Inputting tools and techniques will vary according to the technology being used, for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***

Combine information:
- ***Insert, size, position, wrap, order, group***
- ***Import data***
- ***Links and references to external data***

File format for multimedia outcomes:
- ***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)***

Store and retrieve:

- *Files (eg create, name, open, save, save as, print, close, find, share), file size*
- *Version control*
- *Import/export*
- *Folders (eg create, name)*

Outcome 3 Use multimedia software tools to edit and format multimedia content to meet requirements

The learner should be able to and understand:

Edit multimedia outcomes:

- *Size, crop and position objects*
- *Use layout guides*
- *Existing styles and schemes for font (typeface), size, orientation, colour, alignment*

Manipulate images and graphic elements:

- *Size, crop, position, maintain proportion, border*

Styles, colours and font schemes:

- *Existing styles and schemes*

Check multimedia outcomes:

- *Completeness, accuracy, layout, formatting, animation, sound, sequence*
- *Review against requirements*

Quality problems:

- *Will vary according to the content, for example:*
  - *sound (eg noise, volume)*
  - *images (eg levels, contrast, unwanted content)*
  - *text (eg clarity, spelling, grammar, structure)*

Outcome 4 Play and present multimedia outcomes

The learner should be able to and understand:

Display devices:

- *PC, laptop, mobile device, TV*

Display of multimedia outcomes:

- *Thumbnail, quarter screen, full screen, screen resolution*
- *Output media*
- *Data bandwidth, transmission speeds*

Navigation techniques:

- *Click, scroll, menus, submenus*

Playback controls:

- *Start, stop, fast forward, rewind, pause*

Display settings:

- ***Visual: brightness, contrast, screen resolution, colour balance, monochrome***

Sound:

- ***Volume, treble, bass, balance***
- ***Animation: speed***

Unit 225 Presentation software

Level: ***2***
Credit value: ***4***

Unit aim
This is the ability to use software applications to produce effective presentations, which include a combination of media (eg images, animation and sound) for education, entertainment or information sharing.

On completion of this unit a candidate should be able to select and use a wide range of intermediate presentation software tools and techniques effectively to produce presentations that are at times non-routine or unfamiliar. Any aspect that is unfamiliar may require support and advice from others.

Presentation tools and techniques will be described as 'intermediate' because the:

- ***software tools and functions used will be at times non-routine or unfamiliar;***
- ***choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements; and***
- ***user will take some responsibility for inputting, structuring, editing and presenting the information, which at times may be non-routine or unfamiliar.***

Examples of context: A slide show with animations, transitions, video, sound or linked to an external or web-based data source

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Input and combine text and other information within presentation slides***
2. ***Use presentation software tools to structure, edit and format slide sequences***
3. ***Prepare slideshow for presentation***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 225 Presentation software
Learning outcomes and assessment criteria

Outcome 1 Input and combine text and other information within presentation slides

The learner can:

1. ***Identify what types of information are required for the presentation***
2. ***Enter text and other information using layouts appropriate to type of information***
3. ***Insert charts and tables into presentation slides***
4. ***Insert images, video or sound to enhance the presentation***
5. ***Identify any constraints which may affect the presentation***
6. ***Organise and combine information of different forms or from different sources for presentations***
7. ***Store and retrieve presentation files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use presentation software tools to structure, edit and format slide sequences

The learner can:

1. ***Identify what slide structure and themes to use***
2. ***Select, change and use appropriate templates for slides***
3. ***Select and use appropriate techniques to edit slides and presentations to meet needs***
4. ***Select and use appropriate techniques to format slides and presentations***
5. ***Identify what presentation effects to use to enhance the presentation***
6. ***Select and use animation and transition effects appropriately to enhance slide sequences***

Outcome 3 Prepare slideshow for presentation

The learner can:

1. ***Describe how to present slides to meet needs and communicate effectively***
2. ***Prepare slideshow for presentation***
3. ***Check presentation meets needs, using IT tools and making corrections as necessary***
4. ***Identify and respond to any quality problems with presentations to ensure that presentations meet needs***

Teaching 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.

Outcome 1 Input and combine text and other information within presentation slides

The learner should be able to and understand:

Types of information:

- ***Text, numbers, images, graphics, sound, video***

Images, video or sound for presentations:

- ***Clip-art, photo, scanned images, borders, create diagrams or graphics, image formats***
- ***Pre-recorded audio/video clips, audio and video formats***

Charts and tables for presentations:

- ***Table, pie chart, graph, diagram, organisational chart, flowchart***

Combine information for presentations:

- ***Combine images, charts, tables with text by inserting, re-sizing and positioning; use of text boxes, presentation with audio and/or video, import information produced using other software***
- ***Reference external information with hyperlinks***

Constraints:

- ***On content: copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism***
- ***Equal opportunities, other local guidelines***
- ***On delivery (eg environment, timing)***

Store and retrieve:

- ***Save, save as, find, open, close***
- ***Naming protocols***
- ***Reducing file size, save presentation as a stand alone show or as web pages***

Outcome 2 Use presentation software tools to structure, edit and format slide sequences

The learner should be able to and understand:

Slide structure:

- ***Layout***
- ***Use existing templates, designs and styles, organisational guidelines***
- ***Adapt and create new templates***

Presentation effects:

- ***Video, sound, animation, slide transitions, visual and sound effects, hyperlinks***

Edit slides:

- ***Size, crop and position objects***
- ***Wrap text, add captions and graphic elements, slide order***
- ***Change orientation***

Animation and transition effects:

- *Adding and removing hyperlinks*
- *Apply and create transitions, apply animations*

Format slides:

- *Bullets, numbering, line spacing, alignment, colour, fonts, size, backgrounds, colour schemes, master slides*
- *Themes*

Outcome 3 Prepare slideshow for presentation

The learner should be able to and understand:

Present slides:

- *Timing, content, meaning*
- *Organisation of information*
- *Audience needs, location*

Prepare slides:

- *View and re-order slides*
- *Rehearse timing and effects*
- *Set up and amend slide show settings*
- *Print slides, handouts and speaker notes*

Check presentation:

- *Spell check; grammar check, orientation, layout, slide order, text alignment and formatting, accuracy, clarity, transitions and timings*

Quality problems with presentations:

- *Will vary according to the content, for example:*
  - *Text: formatting, styles*
  - *Images: size, position, orientation*
  - *Effects: timing, brightness, contrast, sound levels, order of animations*

Unit 226 Project management software

Level: *2*
Credit value: *4*

Unit aims

This is the ability to use a software application that plans, organises and monitors completion of the component tasks within a project in logical sequence, given constraints of people and resource availability. This is not about managing a project although these standards may also be applicable to the project manager.

On completion of this unit a candidate should be able to select and use a wide range of intermediate project management software tools and techniques to input and edit information that is at times non-routine or unfamiliar in order to support the planning and management of projects.

Project management tools and techniques will be described as 'intermediate' because:

- ***the software tools and functions used will be at times non-routine;***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements; and***
- ***the user will take some responsibility for inputting, structuring, editing and presenting the information, which at times may be non-routine or unfamiliar.***

Examples of context: Producing progress reports and updating schedules; Produce a simple project and create a Gantt chart view with tasks, durations, dependencies, resources and names

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Create and define a project***
2. ***Enter and edit information about project tasks and resources***
3. ***Update information about project progress***
4. ***Select and use appropriate tools and techniques to display and report on project status***

Guided learning hours

It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***

- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 226 Project management software
Learning outcomes and assessment criteria

Outcome 1 Create and define a project

The learner can:

1. ***Identify the critical information about the project that must be included***
2. ***Create, store and retrieve project management files effectively in line with local guidelines for storage and use of data where applicable***
3. ***Define the project file properties and project options***

Outcome 2 Enter and edit information about project tasks and resources

The learner can:

1. ***Identify the critical tasks and milestones to be completed***
2. ***Enter and edit information about project tasks***
3. ***Identify any deadlines and constraints which apply to the project***
4. ***Identify issues of resource availability and utilisation***
5. ***Create and apply a task calendar for scheduling tasks***
6. ***Enter and edit information about resources for use in the project***
7. ***Adjust templates for project information***
8. ***Set up and edit dependencies between tasks***

Outcome 3 Update information about project progress

The learner can:

1. ***Describe the methods to update and report information about project progress***
2. ***Use editing and formatting techniques to update project elements***
3. ***Update task status in line with progress***
4. ***Update information about resources as required***
5. ***Compare actual progress with project baseline and reschedule uncompleted tasks***
6. ***Identify any risks and issues that may have an impact on the project***

Outcome 4 Select and use appropriate tools and techniques to display and report on project status

The learner can:

1. ***Select and create project reports to meet needs***
2. ***Use filtering and formatting techniques to display project information to meet needs***
3. ***Share project information with other applications***

Teaching 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.

Outcome 1 Create and define a project

The learner should be able to and understand:

Project information:
- ***Tasks, timescales, resources, stages, constraints***
- ***Source of information: provided by the person responsible for the project***

Store and retrieve:
- ***Files (eg create, name, open, save, save as, print, close, find, share)***
- ***Version control; import/export***
- ***File size***
- ***Folders (eg create, name)***

Outcome 2 Enter and edit information about project tasks and resources

The learner should be able to and understand:

Task types:
- ***Fixed cost, fixed duration, fixed work***
- ***Critical, recurring***

Task information:
- ***Duration, status, set reminders, priority, assign resources, constraints, deadlines, outlines***

Task calendar:
- ***Working-time calendar, holidays, customise, charts (eg Gantt chart)***

Task duration:
- ***PERT analysis***

Resources:
- ***People, time, costs, equipment***

Outcome 3 Update information about project progress

The learner should be able to and understand:

Editing techniques:
- ***Cut, copy, paste***

Task status:
- ***Complete, in progress, not started percentage***

Outcome 4 Select and use appropriate tools and techniques to display and report on project status

The learner should be able to and understand:

Project reports:

- ***Task progress, project progress, resource allocation and usage, costs***

Display project information:

- ***Task lists, resource assignment, project costs, critical path***

Unit 227 Spreadsheet software

Level: ***2***
Credit value: ***4***

Unit aim
This is the ability to use a software application designed to record data in rows and columns, perform calculations with numerical data and present information using charts and graphs.

On completion of this unit a candidate should be able to select and use a wide range of intermediate spreadsheet software tools and techniques to produce, present and check spreadsheets that are at times non-routine or unfamiliar.

Spreadsheet software tools and techniques will be defined as 'intermediate' because the:

- ***range of data entry, manipulation and outputting techniques will be at times non-routine or unfamiliar;***
- ***tools, formulas and functions needed to analyse and interpret the data requires knowledge and understanding (for example, mathematical, logical, statistical or financial); and***
- ***user will take some responsibility for setting up or developing the structure and functionality of the spreadsheet.***

Examples of context: Typical examples may include - monthly expenditure and sales figures, budgets, cash flow forecasts and graphs of results.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Use a spreadsheet to enter, edit and organise numerical and other data***
2. ***Select and use appropriate formulas and data analysis tools to meet requirements***
3. ***Select and use tools and techniques to present and format spreadsheet information***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 227 Spreadsheet software
Learning outcomes and assessment criteria

Outcome 1 Use a spreadsheet to enter, edit and organise numerical and other data

The learner can:

1. ***Identify what numerical and other information is needed in the spreadsheet and how it should be structured***
2. ***Enter and edit numerical and other data accurately***
3. ***Combine and link data across worksheets***
4. ***Store and retrieve spreadsheet files effectively, in line with local guidelines and conventions where available***

Outcome 2 Select and use appropriate formulas and data analysis tools to meet requirements

The learner can:

1. ***Identify which tools and techniques to use to analyse and manipulate data to meet requirements***
2. ***Select and use a range of appropriate functions and formulas to meet calculation requirements***
3. ***Use a range of tools and techniques to analyse and manipulate data to meet requirements***

Outcome 3 Select and use tools and techniques to present and format spreadsheet information

The learner can:

1. ***Plan how to present and format spreadsheet information effectively to meet needs***
2. ***Select and use appropriate tools and techniques to format spreadsheet cells, rows, columns and worksheets***
3. ***Select and format an appropriate chart or graph type to display selected information***
4. ***Select and use appropriate page layout to present and print spreadsheet information***
5. ***Check information meets needs, using spreadsheet tools and making corrections as necessary***
6. ***Describe how to find errors in spreadsheet formulas***
7. ***Respond appropriately to any problems with spreadsheets***

Teaching 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.

Outcome 1 Use a spreadsheet to enter, edit and organise numerical and other data

The learner should be able to and understand:

Enter and edit:

- ***Insert data into single and multiple cells, clear cells, edit cell contents, replicate data, find and replace, add and delete rows and columns***
- ***Use absolute and relative cell references***
- ***Add data and text to a chart***

Numerical and other information:

- ***Numbers, charts, graphs, text, images***

Spreadsheet structure:

- ***Spreadsheet components (eg cells, rows, columns, tabs, pages, charts, ranges, workbooks, worksheets)***
- ***Structure, design and layout***

Store and retrieve:

- ***Save, save as, find, open, close***
- ***Open CSV file in spreadsheet application, save spreadsheet file as CSV***
- ***Templates***

Outcome 2 Select and use appropriate formulas and data analysis tools to meet requirements

The learner should be able to and understand:

Analyse and manipulate:

- ***Totals, sub-totals and summary data***
- ***Sorting and display order***
- ***Lists, tables, graphs and charts***
- ***Filter rows and columns***
- ***Judgment of when and how to use these methods***

Functions and formulas:

- ***Design of formulas to meet calculation requirements***
  - ***mathematical, statistical, financial, conditional***
  - ***logical functions***

Outcome 3 Select and use tools and techniques to present and format spreadsheet information

The learner should be able to and understand:

Format cells:

- ***Numbers, currency, percentages, number of decimal places, font and alignment, shading and borders; date and time formats, wrap text***

Format rows and columns:

- ***Height, width, borders and shading, hide, freeze,***

Format charts and graphs:

- ***Format charts and graphs: chart type (eg pie chart, bar chart, single line graph, area, column, x-y scatter, stock, radar, doughnut, surface), title, axis titles, legend, change chart type, move and resize chart***

Page layout:

- ***Size, orientation, margins, header and footer, page breaks, page numbers, date and time, adjust page set up for printing***

Check spreadsheet information:

- ***Accuracy of numbers, formulas and any text***
- ***Accuracy of results; suitability of charts and graphs***
- ***Reveal formulae***
- ***Layout and formatting***
- ***Validity and accuracy of analysis***
- ***Clarity of overall spreadsheet***

Problems with spreadsheets:

- ***Using help***
- ***Sorting out errors in formulas, circular reference***

Unit 228 Website software

Level: *2*
Credit value: *4*

Unit aim
This is the ability to use a software application designed for planning, designing and building websites.

On completion of this unit a candidate should be able to select and use a wide range of intermediate website software tools and techniques to produce multiple-page websites.

Website software tools and techniques will be defined as 'intermediate' because the:

- ***software tools and functions involved will at times be non-routine or unfamiliar;***
- ***choice and use of development techniques will need to take account of a number of factors or elements; and***
- ***user will take some responsibility for planning the website, creating or altering the template, inputting, manipulating, linking and uploading the content.***

Examples of context: Create a multiple page website with menu-driven navigation for a sports club. Set up family site with photographs and linked pages for each family member.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Create structures and styles for websites***
2. ***Use website software tools to prepare content for websites***
3. ***Publish websites***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 228 Website software
Learning outcomes and assessment criteria

Outcome 1 Create structures and styles for websites

The learner can:

1. ***Describe what website content and layout will be needed for each page***
2. ***Plan and create web page templates to layout***
3. ***Select and use website features and structures to help the user navigate round web pages within the site***
4. ***Create, select and use styles to keep the appearance of web pages consistent and make them easy to understand***
5. ***Describe how copyright and other constraints may affect the website***
6. ***Describe what access issues may need to be taken into account***
7. ***Describe what file types to use for saving content***
8. ***Store and retrieve files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use website software tools to prepare content for websites

The learner can:

1. ***Prepare content for web pages so that it is ready for editing and formatting***
2. ***Organise and combine information needed for web pages including across different software***
3. ***Select and use appropriate editing and formatting techniques to aid both clarity and navigation***
4. ***Select and use appropriate development techniques to link information across pages***
5. ***Change the file formats appropriately for content***
6. ***Check web pages meet needs, using IT tools and making corrections as necessary***

Outcome 3 Publish websites

The learner can:

1. ***Select and use appropriate testing methods to check that all elements of websites are working as planned***
2. ***Identify any quality problems with websites and how to respond to them***
3. ***Select and use an appropriate programme to upload and publish the website***
4. ***Respond appropriately to problems with multiple page websites***

Teaching 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.

Outcome 1 Create structures and styles for websites

The learner should be able to and understand:

Content and layout:

- ***Web page content and layout will vary according to the template, but may include:***
  - ***text (eg body text, headings, captions)***
  - ***images (eg still photographs, diagrams)***
  - ***numbers (eg tables, charts or graphs)***
  - ***background (eg colours, gradients, patterns, textures)***
  - ***structure (eg frames, side bars)***
  - ***moving images (eg constraints of use, animation, video clips)***
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism***
- ***Permissions***

Website features:

- ***Web page features will vary, but may include:***
  - ***navigation (eg action buttons, links, hot spots, menus, hyperlinks, pop-ups)***
  - ***multimedia (eg sound linked to actions, video clips, sound track)***
  - ***sound (eg clips linked to navigation, background music, video sound track)***

Web page templates:

- ***Design layout will vary but may include:***
  - ***text (eg body text, headings, captions)***
  - ***images (eg still photographs, diagrams)***
  - ***numbers (eg tables, charts or graphs),***
  - ***background (eg colours, gradients, patterns, textures)***
  - ***structure (eg frames, side bars)***
  - ***moving images (eg animation, video clips)***
  - ***sound (eg clips linked to navigation, background music, video sound track)***

Web page styles:

- ***Styles will vary according to the different elements of the website design, but may include:***
  - ***typeface (eg font, colour, size and alignment of headings, captions or body text)***
  - ***lines (eg type, thickness and colour of borders, tables, diagrams)***

Access issues:

- ***The difficulties different users may have in accessing websites, accessibility guidelines, affect of download speeds (eg from different browser software, connection type, size of web page contents)***

File types:

- ***Text (eg rtf, doc, pdf)***
- ***Images (eg jpeg, tiff, psd)***

- ***Charts and graphs (eg xls)***
- ***Sound (eg wav, MP3)***

Store and retrieve:

- *Files (eg create, name, open, save, save as, print, close, find, share), file size*
- *Version control*
- *Import data, export data*
- *Folders (eg create, name)*

Outcome 2 Use website software tools to prepare content for websites

The learner should be able to and understand:

Combine information:

- *Combine images with text (eg photo captions)*
- *Presentation with audio and/or video; numbers with charts and graphs*
- *Text alignment, captions, text wrap*
- *Behind, in front, grouping*

Editing techniques:

- *Editing techniques will vary in line with the type of information, for example:*
  - *select, copy, cut, paste, undo, redo, drag and drop, find, replace, size, crop, position, change templates*

Development techniques:

- *Creating links to bookmark text within a page, linking web pages together, adding a link to another website, altering simple code using programming language*

File formats:

- *Change format of documents to RTF or HTML*

Check web pages:

- *Will vary depending on the content but may include, for example:*
- *Text: spell check; grammar check, type face and size, hyphenation*
- *Layout: page layout, margins, line and page breaks, tables, frames, sections*
- *Images: size, alignment and orientation, suitability of file format, appropriate choice of colour mode and use of filters, fitness for purpose of image resolution*

Outcome 3 Publish websites

The learner should be able to and understand:

Testing methods:

- *Methods will vary but may include:*
  - *viewing web pages using browser software, testing navigation round pages within multiple page website, testing external links*

Problems with websites:

- *Problems may vary, but could include:*
  - *content that is not appropriate for the template or missing*
  - *text that is not readable or missing*
  - *images that are oriented or sized wrongly*
  - *navigation that does not work as planned*
  - *multimedia features (eg sound levels, image resolution, synchronization of sound and images)*

Upload and publish website:

- *Upload content to a template*
- *Use file exchange programme to upload and publish (eg FTP or HTTP)*

Unit 229 Word processing software

Level: ***2***
Credit value: ***4***

Unit aim
This is the ability to use a software application designed for the creation, editing and production of largely text-based documents. On completion of this unit a candidate should be able to select and use a range of intermediate word processing software tools and techniques to produce documents that are at times non-routine or unfamiliar. Any aspect that is unfamiliar may require support and advice from others.

Word processing tools and techniques will be described as 'intermediate' because the:

- ***software tools and functions will be at times non-routine or unfamiliar;***
- ***choice of techniques will need to take account of a number of factors or elements; and***
- ***user will take some responsibility for the inputting, manipulating and outputting of the information.***

Examples of context: Typical documents may include – business letters and invoices with automated content (eg AutoText, mail merge), more complex reports and content for web pages.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Enter and combine text and other information accurately within word processing documents***
2. ***Create and modify layout and structures for word processing documents***
3. ***Use word processing software tools to format and present documents effectively to meet requirements***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 2 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 229 Word processing software
Learning outcomes and assessment criteria

Outcome 1 Enter and combine text and other information accurately within word processing documents

The learner can:

1. ***Identify what types of information are needed in documents***
2. ***Use appropriate techniques to enter text and other information accurately and efficiently***
3. ***Select and use appropriate templates for different purposes***
4. ***Identify when and how to combine and merge information from other software or other documents***
5. ***Select and use a range of editing tools to amend document content***
6. ***Combine or merge information within a document from a range of sources***
7. ***Store and retrieve document and template files effectively, in line with local guidelines and conventions where available***

Outcome 2 Create and modify layout and structures for word processing documents

The learner can:

1. ***Identify the document requirements for structure and style***
2. ***Identify what templates and styles are available and when to use them***
3. ***Create and modify columns, tables and forms to organise information***
4. ***Select and apply styles to text***

Outcome 3 Use word processing software tools to format and present documents effectively to meet requirements

The learner can:

1. ***Identify how the document should be formatted to aid meaning***
2. ***Select and use appropriate techniques to format characters and paragraphs***
3. ***Select and use appropriate page and section layouts to present and print documents***
4. ***Describe any quality problems with documents***
5. ***Check documents meet needs, using IT tools and making corrections as necessary***
6. ***Respond appropriately to quality problems with documents so that outcomes meet needs***

Teaching 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.

Outcome 1 Enter and combine text and other information accurately within word processing documents

The learner should be able to and understand:

Types of information:

- ***Text, numbers, images, other graphic elements (eg lines, borders)***
- ***Hyperlinks, charts, objects***

Keyboard or other input method:

- ***Keyboard skills: using the full range of keys, typing accurately and efficiently, keyboard shortcuts***
- ***Other input methods: voice recognition, touch screen, stylus***

Combine information:

- ***Insert, size, position, wrap, order, group, link information in a document to another source***
- ***Mail merge documents and labels***
- ***Hyperlinks***

Templates:

- ***Existing templates (eg blank document, fax, letter, web page), create new templates for common documents***

Editing tools:

- ***Editing tools appropriate to the type of information, for example: select, copy, cut, paste, undo, redo, drag and drop, find, replace, insert, delete, size, crop, position***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find, share)***
- ***Version control***
- ***Import/export***
- ***File size; folders (eg create, name)***

Outcome 2 Create and modify layout and structures for word processing documents

The learner should be able to and understand:

Requirements for structure and style:

- ***Document layout, house style***

Tables and forms:

- *Insert and delete cells, rows and columns, adjust row height and column width*
- *Add and amend table structure, merge cells, complete forms and tables, insert and modify form fields, convert text to table*
- *Merge and split cells, horizontal and vertical text alignment, cell margin, add borders and shading, sort*

Columns:

- *Add and delete columns, modify column width, add columns to whole document and part of a page*

Styles:

- *Heading styles: apply or change existing styles to a word, line, paragraph or section*
- *Define styles for different elements of common documents*

Page layouts:

- *Paper size and type, change page orientation, margins, page breaks, page numbering, section breaks*
- *Header and footer, date and time, adjust page set up for printing*

Outcome 3 Use word processing software tools to format and present documents effectively to meet requirements

The learner should be able to and understand:

Format characters:

- *Size, font style (typeface), colour, bold, underline, italic, superscript, subscript, special characters and symbols*

Format paragraphs:

- *Alignment, numbering, line spacing, widows and orphans*
- *Tabs and indents*
- *Borders, bullets, shading*

Check word processed documents:

- *Spell check, grammar check, typeface and size, hyphenation*
- *Page layout, margins, line and page breaks, tables*
- *Print preview*
- *Accuracy, consistency, clarity*
- *Language and dictionary settings*

Quality problems with documents:

- *Will vary according to the content, for example:*
  - *text (eg styles, structure, layout)*
  - *images (eg size, position, orientation)*
  - *numbers (eg decimal points, results of any calculations)*

Unit 234 Understand the potential of IT

Level: ***2***
Credit value: ***8***

Unit aims

The use of IT tools and systems can transform business communications and processes in a variety of contexts. Through this unit, the learner will develop an appreciation of the latest trends in technology, especially those which impact cyber security.

This unit is designed to allow IT Users to develop an understanding of the impact of IT on business, society and the individual. It has a particular emphasis on exploring the potential of new and emerging technologies.

The learner will consider how IT has and could further transform a particular organisation and the issues around introduction of new IT solutions and organisational IT security.

Learning outcomes

There are 5 learning outcomes to this unit. The learner will be able to:

1. ***Understand the impact of IT on business***
2. ***Understand how new and emerging technologies can impact society and the individual***
3. ***Know how IT is being used in an organisation***
4. ***Know how the introduction of new IT tools and systems can affect an organisation***
5. ***Know the methods used to enhance IT security in an organisation***

Guided learning hours

It is recommended that 70 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT).

- ***IPU: Improving productivity using IT***
- ***IPU:B1 Plan, select and use appropriate IT systems and software for different purposes***
- ***ITS: IT Security for Users***
- ***ITS:B1 Select and use appropriate methods to minimise security risk to IT systems and data***

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

All Learning Outcomes of this unit must be assessed by knowledge assessment.

This knowledge unit forms a core part of the Apprenticeship framework in IT User skills in England, Wales and Northern Ireland.

There will be short answer questions for this unit covering the knowledge in this unit.

Unit 234 Understand the potential of IT
Learning outcomes and assessment criteria

Outcome 1 Understand the impact of IT on business

1. *Describe the potential of IT to improve internal and external communications*
2. *Describe the potential of IT to improve business processes*
3. *Describe the possible positive and negative impact on employees of the deployment of IT*

Outcome 2 Understand how new and emerging technologies can impact society and the individual

1. *Describe the benefits of new technologies on personal and social communication and interaction*
2. *Describe how IT can improve access to education and government services*
3. *Describe how IT can improve access to products and services*
4. *Identify possible drawbacks of new technologies for individuals and society*

Outcome 3 Know how IT is being used in an organisation

1. *Describe the purpose of key components of the IT system (hardware, software and communications)*
2. *Describe the roles and responsibilities of those involved in operating and supporting the IT function*
3. *Describe the guidelines and procedures for accessing IT help and support*

Outcome 4 Know how the introduction of new IT tools and systems can affect an organisation

1. *Compare different approaches to introducing new IT tools and systems*
2. *Describe potential benefits from the introduction of new IT tools and systems*
3. *Describe methods used by manufacturers and publishers to control usage of digital content and devices*

Outcome 5 Know the methods used to enhance IT security in an organisation

1. *Describe the main risks to data and personal security for IT users*
2. *Describe the types of control measures and policies organisations can put in place to maximise personal and data protection*
3. *Describe how organisations can exploit new developments in technology to improve cyber security*

Teaching 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.

Learners should be encouraged to illustrate their points with examples from their own organisation, or an organisation which they know very well, although their research into potential of IT should not be restricted by what they can find out locally. Case studies would provide a helpful approach to develop a broader perspective.

Outcome 1 Understand the impact of IT on business

The learner should be able to understand and explain using examples

Potential for internal communications

- ***All staff***
- ***Within departments***
- ***Between departments***
- ***Virtual teams***
- ***Special purpose communications such as around new product releases, learning and development opportunities***

External communications with

- ***Customers – current and prospect – such as via email, newsletters***
- ***Suppliers***
- ***Access to online experts***
- ***Networks – best practice, interest groups and trade associations***

Business processes

- ***Management processes***
- ***Operational processes, including manufacturing and production, sales and purchase, advertising and marketing***
- ***Supporting processes including accounting, recruitment, IT, learning and development***

Improving business processes

- ***Ways to improve productivity and efficiency including saving time, streamlining processes, increasing output, improving quality or reliability of outputs; reducing cost of solution***

Describe the possible positive and negative impact on employees of the deployment of IT

- ***Positive impact – repetitive tasks automated, increased accuracy, speed, personal and social factors such as motivation and job enjoyment***
- ***Negative impact – perceptions that IT will threaten jobs, need for new skills, issues for older workforce vs. digital natives***

Outcome 2 Understand the impact of the internet and mobile communications on society and the individual

The learner should be able to understand and explain using examples

Personal and social communication

- ***Home computing and the home office***
- ***Easy access to information, such as for hobbies and leisure, news and current affairs, applying for jobs***
- ***Easy production and sharing of information and views, such as using web 2.0 tools***
- ***For transactions, such as for internet banking, bookings, sales and purchases***
- ***Storing, sharing and tagging resources such as photos, videos and audio files***
- ***Mobile technologies, opening up access on the move for telephony, digital media and an ever increasing range of apps***
- ***Instant messaging***
- ***Gaming***

Access to education

- ***Widening sources of information about education opportunities***
- ***Using learning technologies to learn 'any time, any place'***
- ***'On-demand' or 'just-in-time' tools such as electronic performance support systems***
- ***Reducing training costs and study times with e-learning***
- ***Technology increasing reach and take-up of learning***

Access to government services

- ***Reducing cost of transactions and improving speed of response***
- ***Central government, such as self-assessment for income tax***
- ***Local government, such as housing applications, planning decisions,***
- ***Health services, such as NHS24***
- ***Schools, such as information for parents***

Drawbacks for individuals

- ***Issues around data protection, privacy, safety and security***
- ***Issues of user safety and privacy of information***

Drawbacks for society

- ***Vulnerability of critical systems, including national systems for power supply, food distribution, transport, broadcasting and defence***
- ***Increasing dependence on internet-based systems***
- ***Potential for criminal use, such as credit card fraud***

Outcome 3 Know how IT is being used in an organisation

For this outcome the learner will look at the detail of IT use in a particular organisation to support business.

The learner should be able to understand and use examples to explain the purpose of:

Key components of IT system

- ***Hardware, including networks***
- ***Software, including operating systems, productivity tools and applications***
- ***Communications systems, including email and messaging services***
- ***Web components, including customer-facing websites, intranet, extranet***

Roles and responsibilities of IT team or function. May include:

- ***IT director/CIO***
- ***Service management***
- ***Helpdesk operations***
- ***Project/programme management***
- ***Systems analysis and design***
- ***System testing***
- ***Network and website management***
- ***Software development and testing***

Accessing IT help

- ***Routine and non-routine errors***
- ***Local helpdesk arrangements***
- ***Fault reporting***
- ***System maintenance and backup***

Outcome 4 Know how the introduction of new IT tools and systems can affect an organisation

For this outcome the learner will look at the detail of IT use in a particular organisation to support business.

The learner should be able to understand and explain using examples

Introducing new systems

- ***Phased introduction***
- ***Parallel operation***
- ***Switch-over***
- ***Change management and ensuring staff buy-in***

Benefits – will vary according to the examples used

- ***New business processes supported***
- ***Budget and spend money more wisely***
- ***Simplify or streamline processes***
- ***Remove bugs or put fixes in place***
- ***Additional opportunities for training and development***

Control usage of digital content

- ***Intellectual property***
- ***Digital rights management***
- ***Licensing arrangements including freeware, shareware, open source, creative commons, subscription-based pricing***
- ***Patents and copyrights***
- ***Legal issues around use and downloading of digital content***

Outcome 5 Know the methods used to enhance IT security in an organisation

For this outcome the learner will look at the detail of IT use in a particular organisation to support business.

The learner should be able to understand and explain using examples

Risks to security (see also Unit 205 IT Security for Users for additional examples)

- ***Threats to system performance such as e-mail "spam", malicious programs (including viruses, malware, worms, trojans, spyware, adware and rogue dialers) and hackers; hoaxes***
- ***Threats to information security, such as from theft, unauthorized access, accidental file deletion***
- ***Unauthorized software or downloads***
- ***Malpractice***

Control measures

- ***Risk assessment***
- ***Access controls including physical access, password protection, user authentication systems such as biometrics, smart cards***
- ***Firewall, spyware, anti-spam software, anti-virus software***
- ***Security patches and updates***
- ***Secure websites, secure payment mechanisms***
- ***Backup and retrieval systems for system continuity***
- ***System for reporting security threats or breaches***

Guidelines and organizational policies. May include:

- ***Email/Internet use***
- ***IT security***
- ***Acceptable use of IT facilities***
- ***Health and Safety***

Improving cyber security

- ***Where to discover recent developments in IT security***

Unit 235 Developing personal and team effectiveness using IT

Level: *2*
Credit value: *4*

Unit aims

There are a range of IT tools and techniques that IT users can use to support their own personal and professional development.

Through this unit, learners start to recognise and respect diversity, individual differences and perspectives and understand how IT can be used to support and enhance both personal and team effectiveness

Learners will consider how they use information management tools and collaborative workspaces to support personal and team activities.

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Know how IT can support personal development***
2. ***Use IT to support personal development***
3. ***Know how IT can support the development of team effectiveness***
4. ***Review use of IT for team or collaborative activities***

Guided learning hours

It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 2 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT).

- ***IPU: Improving productivity using IT***
- ***An intermediate user can plan and review their use of pre-defined or commonly used IT tools for activities that are at times non-routine or unfamiliar. As a result of reviewing their work, they will be able to devise solutions to use IT tools to improve productivity.***
- ***IPU:B1 Plan, select and use appropriate IT systems and software for different purposes IPU:B2 Review and adapt the ongoing use of IT tools and systems to make sure that activities are successful***
- ***PIM: Personal Information Management Software***
- ***PIM:B2 Use a task list to prioritise activities***
- ***UCT: Using Collaborative Technologies***
- ***UCT:B4 Contribute to tasks using collaborative technologies***

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

Learning Outcomes 1 and 3 of this unit must be assessed by knowledge assessment. This represents 2 credits from a unit total of 4.

The remainder may be assessed in the workplace.

This unit forms part of the Apprenticeship framework in IT User skills in England, Wales and Northern Ireland. It offers clear opportunities for the learner to provide evidence of achievement of the Personal Learning and Thinking Skills within the context of the use of IT by self and others.

It will be assessed via an assignment which can be found on the City & Guilds website.

Unit 235 Developing personal and team effectiveness using IT

Learning outcomes and assessment criteria

Outcome 1 Know how IT can support personal development

1. *Describe how IT tools and systems can be used to manage time effectively*
2. *Identify IT tools and resources to support own learning and development*
3. *Describe how IT tools can support personal performance improvement*

Outcome 2 Use IT to support personal development

1. *Create an action plan to improve own working practice*
2. *Participate in activities to meet personal development goals*
3. *Use appropriate IT tools to support personal performance improvement*

Outcome 3 Know how IT can support the development of team effectiveness

1. *Describe the roles and responsibilities of team members*
2. *Describe how IT tools and systems can be used to improve team activities*
3. *Identify ways that IT can be used to overcome obstacles to effective teamwork*

Outcome 4 Review use of IT for team or collaborative activities

1. *Review contribution own use of IT to team activities*
2. *Provide feedback to others on their use of IT in a constructive and considerate manner*
3. *Review feedback from others on own use of IT*

Teaching 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.

This unit offers a number of opportunities to embed development of Personal Learning and Thinking

Skills (PLTS). Some references for these are given in brackets beside the relevant item although these are by no means exhaustive (eg CT1 – Creative Thinkers 1 – Generate ideas and explore possibilities).

Outcomes 1 and 2 can be taught holistically, with the learner developing both the understanding of what tools are available in their organisation, how to locate other tools of potential use and then using selected tools to support their own work and development.

Outcome 1 Know how IT can support personal development

The learner should be able to understand the purpose of

Tools and systems for managing time effectively (SM3)

- ***Personal calendars***
- ***Synchronising shared calendars***
- ***Tools for scheduling online meetings***
- ***Tools for note-taking***

Tools and resources to support own learning and development (RL)

- ***Provision within own organization – eg Virtual Learning Environment/Learning Management System***
- ***Range of e-learning courses – available in-house or more widely via the internet***
- ***Communities of practice and social networks***
- ***Web 2.0 tools such as blogs, podcasts, vodcasts and wikis***
- ***e-portfolios, personal learning log***
- ***Mobile devices***

Where IT can contribute to personal performance improvement (CT)

- ***Planning tasks***
- ***Saving time***
- ***Access to information***
- ***Organisation and management of data***
- ***Simplifying complicated tasks***
- ***Automating repetitive tasks***
- ***Supporting collaborative and team working***
- ***Access to learning and development opportunities***
- ***Having fun!***

Outcome 2 Use IT to support personal development
The learner should be able to understand the purpose of, and use

Action plan (SM)

- ***Skills audit and diagnostic tools to identify skills needs***
- ***Competence management tools***
- ***Electronic learning plans – to understand personal qualities and skills, review preferred learning style, review current learning***
- ***Set SMART targets and goals (EP3)***

Participate in activities to meet personal development goals (SM2)

- ***Courses and learning opportunities within own organization***
- ***Engage in planning and review activities with tutor/mentor/careers adviser***
- ***Keep reflective learning log***

IT tools for personal performance improvement (SM1-5)

- ***Task scheduler***
- ***Job aids***
- ***Calendar***
- ***Mobile apps to support effective working***
- ***Application software such as word processors, spreadsheets, presentation software***

Outcomes 3 and 4 consider the learner in the context of team member, working with others towards shared goals. The underpinning knowledge in Outcome 3 introduces the learner to ways in which IT can be used to support team activities. Although not all of these will be relevant, the learner will start to think creatively about how they can be applied in their own team situation.

Outcome 3 Know how IT can support the development of team effectiveness
The learner should be able to understand

- ***The roles and responsibilities of team members (SM1) Differing skills and aptitudes of team members***

Leadership / ownership of tasks and activities

- ***Facilitate responsible engagement with collaborative technologies***
- ***Own role and responsibilities with respect to use of IT***

IT tools and systems for team activities (TW, EP)

- ***Video conferencing, virtual meetings***
- ***Collaborative software***
- ***Legal and cultural issues; user rules, moderations policies, ethical issues around the use of collaborative tools***
- ***Enterprise-wide systems such as SharePoint***

IT to overcome obstacles to effective teamwork (TW3)

- ***Project and task management using project management tools***
- ***Improving team communications using email and web 2.0 tools***
- ***Sharing ideas and files using webinars, virtual meetings and 'cloud' resources***
- ***Compatibility between systems – identifying and responding to problems***

Outcome 4 Review use of IT for team or collaborative activities
The learner should be able to

Review contribution (RL1)

- ***How IT was used to aid completion of tasks – to time, quality and budget***
- ***How IT was used to aid team communications***

Provide feedback (TW4, 6)

- ***Content - information specific, skill-focused, based on observation of use of IT tools and systems***
- ***Manner – language, tone, sincerity, appreciation, concern***
- ***Timing – real-time, close to event, just-in-time***
- ***Frequency – determined by project/task; determined by organisation processes***

Review feedback (RL4)

- ***Identify opportunities and achievements (RL1)***
- ***Evaluate experiences and progress (Rl5)***
- ***Points for personal development (RL3)***

Unit 237 3D Drawing and planning software

Level: ***2***
Credit value: ***4***

Unit aim:
This unit is about the ability to use a software application, such as a Computer-Aided Design application, designed to create, modify and layout intermediate 3D designs for buildings to display in print or on a screen. It includes understanding the capabilities of the 3D software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the 3D software application appropriately and effectively.

This unit is about the skills and knowledge required by an IT user to use intermediate 3D design and planning software tools and techniques for information that is, at times, non-routine or unfamiliar. Any aspect that is unfamiliar will require support and advice from others.

3D design software tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions involved will be, at times, non-routine or unfamiliar***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and at times be multi-step***
- ***the user will take some responsibility for inputting, manipulating and outputting the information.***

Note: The term 3D plans is used throughout the learning outcomes and performance criteria. By plans we mean the outputs from 3D design, drawing and planning tools used in the preparation of building designs and plans.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will:

1. ***be able to prepare 3D plans to meet requirements***
2. ***be able to manipulate and present 3D plans.***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This unit will be assessed by portfolio of evidence – classroom or work based.

Unit 237 3D Drawing and planning software
Learning outcomes and assessment criteria

Outcome 1 Be able to prepare 3D plans to meet requirements

The learner can:

1. ***describe the requirements for 3D plans***
2. ***review and adapt templates to meet requirements***
3. ***use software tools to create objects for plans***
4. ***organise the information for plans***
5. ***describe the factors affecting selection of file type***
6. ***follow guidelines and conventions for the storage and use of data.***

Outcome 2 Be able to manipulate and present 3D plans

The learner can:

1. ***use software tools and techniques to manipulate building objects***
2. ***annotate plans to describe components***
3. ***adjust views for different purposes***
4. ***check plans meet needs***
5. ***describe how to improve the quality of plans for presentation.***

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare 3D plans to meet requirements

Create objects:

- ***Building objects***
- ***Combine objects from different sources***
- ***Imported objects***
- ***Composition.***

Organise information:

- ***Templates***
- ***Projects***
- ***Document sets.***

File type:

- ***File size; format; purpose; context; display device.***

Guidelines and conventions:

- ***Set by employer or organisation***
- ***Policies relating to security; backup; data protection.***
- ***Copyright.***

Storage:

- ***Filenames; folders; projects; version control; guidelines for data format.***
- ***File management will vary according to the application.***

Outcome 2 Be able to manipulate and present 3D plans

Manipulate objects:

- ***Select; move; rotate; scale; drafting guides; format; geometry; align; object properties.***

Annotate:

- ***Dimensions; text; tags; legends.***

Views:

- ***Elevations; sections; 3D views; range; callouts; cameras; grids; print settings.***

Quality:

- ***Rendering; display device; adjust settings; lighting effects; animation; walkthroughs.***

Unit 238 3D Design software

Level: ***2***
Credit value: ***4***

Unit aim:
This unit is about the ability to use a software application, such as a computer-aided design application, designed to create, modify and layout intermediate 3D designs for science, technology, engineering, arts and manufacturing to display in print or on a screen.

It includes understanding the capabilities of the 3D software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the 3D software application appropriately and effectively.

This unit is about the skills and knowledge required by an IT user to select and use a wide range of intermediate 3D design and planning software tools and techniques for information that is, at times, non-routine or unfamiliar. Any aspect that is unfamiliar may require support and advice from others.

3D design software tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions involved will, at times, be non-routine or unfamiliar***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and, at times, be multi-step***
- ***the user will take some responsibility for inputting, manipulating and outputting the information.***

Learning outcomes
There are 3 learning outcomes to this unit. The learner will:

1. ***be able to prepare 3D designs to meet requirements***
2. ***be able to create and manipulate 3D designs***
3. ***be able to present 3D designs.***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This unit will be assessed by portfolio of evidence – classroom or work based.

Unit 238 3D Design software
Learning outcomes and assessment criteria

Outcome 1 Be able to prepare 3D designs to meet requirements

The learner can:

1. ***describe the requirements for 3D designs***
2. ***review and adapt templates to meet requirements***
3. ***use software tools to create and constrain design elements***
4. ***describe the factors affecting selection of file type***
5. ***follow guidelines and conventions for the storage and use of data.***

Outcome 2 Be able to create and manipulate 3D designs

The learner can:

1. ***combine design elements for different purposes***
2. ***use software tools and techniques to manipulate objects in 3D***
3. ***annotate designs to describe components.***

Outcome 3 Be able to present 3D designs

The learner can:

1. ***check designs to meet needs***
2. ***select methods to present 3D designs***
3. ***describe how to improve quality of designs for presentation.***

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare 3D designs to meet requirements

Create and constrain design elements:

- ***Shape; 3D geometries; drafting guides; sketch constraints; geometric; dimensional; reform;***
- ***Combine objects from different sources; import objects; composition.***

File type:

- ***File size; format; purpose; context; display device.***

Guidelines and conventions:

- ***Set by employer or organisation***
- ***Policies relating to security, backup and data protection***
- ***Copyright.***

Storage:

- ***Filenames; folders; projects; workspaces; version control;***
- ***Guidelines for data format;***
- ***File management will vary according to the application.***

Outcome 2 Be able to use 3D animation software tools and techniques to create animated sequences

Purposes:

- ***Parts; assemblies; presentations; drawings.***

Manipulate objects:

- ***Select; move; rotate; scale; format; geometry; object properties; revolve; extrude.***

Annotate:

- ***Dimensions; text; balloons; tags; parts lists.***

Outcome 3 Be able to present 3D animated sequences

Present 3D designs:

- ***3D screen views***
- ***2D printing.***

Quality:

- ***Rendering; display device; adjust settings; animation.***

Unit 239 3D Animation software

Level: ***2***
Credit value: ***4***

Unit aim:
This unit is about the ability to use 3D animation software application designed to create and edit 3D animated sequences.

This unit is about the skills and knowledge required by an IT user to select and use a wide range of intermediate 3D animation software tools and techniques to create, edit and present 3D animated sequences that are at times non-routine or unfamiliar. Any aspect that is unfamiliar may require support and advice from others.

3D animation software tools and techniques will be defined as 'intermediate' because:

- ***the software tools and functions involved will, at times, non-routine or unfamiliar***
- ***the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements and, at times, be multi-step***
- ***the user will take some responsibility for inputting, manipulating and outputting the information which, at times, will be non-routine and unfamiliar.***

Learning outcomes
There are 3 learning outcomes to this unit. The learner will:

1. ***be able to prepare 3D animated sequences to meet requirements***
2. ***be able to use 3D animation software tools and techniques to create animated sequences***
3. ***be able to present 3D animated sequences.***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This will be assessed via an assignment which can be found on the City & Guilds website.

Unit 239 3D Animation software
Learning outcomes and assessment criteria

Outcome 1 Be able to prepare 3D animated sequences to meet requirements

The learner can:

1. *describe the audience requirements for animated sequences*
2. *prepare software for use*
3. *use software tools to input information*
4. *organise information for animated sequences*
5. *adjust information displays for different purposes*
6. *describe factors affecting the selection of file type*
7. *follow guidelines and conventions for the storage and use of data.*

Outcome 2 Be able to use 3D animation software tools and techniques to create animated sequences

The learner can:

1. *use software tools and techniques to manipulate objects*
2. *use software features to transform objects*
3. *modify objects for display*
4. *animate objects on a path.*

Outcome 3 Be able to present 3D animated sequences

The learner can:

1. *render animated sequences*
2. *check animated sequences meet needs*
3. *describe how to improve the quality of presentations.*

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare 3D animated sequences to meet requirements

Prepare:

- ***User preferences; hotkeys; toolbars; gridlines.***

Input information:

- ***Graphic objects; text, audio; images; clones; imported objects.***

Organise information:

- ***Combine objects from different sources; composition.***

Information display:

- ***Cameras; views; outlines; layers.***

File type:

- ***File size; format; purpose; context; display device.***

Guidelines and conventions:

- ***Set by employer or organisation;***
- ***Policies relating to security, backup and data protection***
- ***Copyright.***

Storage:

- ***Filenames; folders; projects; version control***
- ***Guidelines for data format***
- ***File management will vary according to the application.***

Outcome 2 Be able to use 3D animation software tools and techniques to create animated sequences

Manipulate objects:

- ***Select; move; rotate; scale; align.***

Transform objects:

- ***Pivot; bevel; curves; polygons; surfaces; mesh.***

Modify objects:

- ***Lighting; shading; textures.***

Animate objects:

- ***Keyframes; controls; playback; motion paths.***

Outcome 3 Be able to present 3D animated sequences

Render:

- ***Batch rendering; IPR rendering.***

Quality:

- ***Display device; adjust settings; lighting; animation speed.***

Unit 301 Improving productivity using IT

Level: ***3***
Credit value: ***5***

Unit aim
This is the ability to plan, evaluate and improve procedures involving the use of IT tools and systems to improve the productivity and efficiency of tasks and activities. On completion of this unit the candidate should be able to plan and review their use of predefined or commonly used IT tools for activities most of which are complex and non-routine. They will be able to devise solutions to use IT tools to improve productivity, as well as take considerable responsibility and autonomy being prepared to offer support and advice to others.

Examples of context: An improvement may be adapting an off-the-shelf solution to create a bespoke database to manage customer relationships in a marketing context.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Plan, select and use appropriate IT systems and software for different purposes***
2. ***Evaluate the selection and use of IT tools to make sure that activities are successful***
3. ***Devise solutions to improve the use of IT tools and systems for self and others***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 301 Improving productivity using IT
Learning outcomes and assessment criteria

Outcome 1 Plan, select and use appropriate IT systems and software for different purposes

The learner can:

1. ***Explain the purpose for using IT***
2. ***Analyse the methods, skills and resources required to complete the task successfully***
3. ***Analyse any factors that may affect the task***
4. ***Critically compare alternative methods to produce the intended outcome***
5. ***Develop plans for using IT for different tasks and purposes, including contingencies***
6. ***Select IT systems and software applications as appropriate to purposes and use them to produce effective outcomes***
7. ***Explain why different software applications could be chosen to suit different tasks, purposes and outcomes***
8. ***Explain any legal or local guidelines or constraints which apply to the task or activity***

Outcome 2 Evaluate the selection and use of IT tools to make sure that activities are successful

The learner can:

1. ***Critically compare the strengths and weaknesses of own and other people's final work***
2. ***Review ongoing use of IT tools and techniques and change the approach as needed***
3. ***Evaluate and test solutions to make sure they match requirements and are fit for purpose***
4. ***Be prepared to give feedback on other people's selection and use of IT tools***
5. ***Explain different ways to make further improvements to work***

Outcome 3 Devise solutions to improve the use of IT tools and systems for self and others

The learner can:

1. ***Evaluate the productivity and efficiency of IT systems and procedures used by self and others***
2. ***Research and advise on ways to improve productivity and efficiency***
3. ***Develop solutions that make a demonstrable improvement to the use of IT tools and systems***
4. ***Test solutions to ensure that they work as intended***
5. ***Recommend improvements to IT systems and procedures that increase productivity***

Teaching 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.

Outcome 1 Plan, select and use appropriate IT systems and software for different purposes

The learner should be able to and understand:

Purposes for using IT:

- ***Who and what the information is for***
- ***When it must be finished***
- ***What information needs to be included***
- ***Where it will be used (on screen, sent to others, printed)***

Factors that may affect the task:

- ***Access to information***
- ***Steps that need to be taken in advance***
- ***Availability of time, budget and resources***
- ***Audience need***

Reasons for choosing IT:

- ***Time, convenience, cost; benefits of IT or manual methods of preparing, processing, presenting and managing information***
- ***Convenience and effectiveness at meeting needs, quality, accuracy***
- ***How IT can make tasks easier than other methods, streamline business processes, increase productivity, return on investment***
- ***Any difficulties people have in using IT***

Legal or local guidelines or constraints may include:

- ***Data protection, copyright, software licensing***
- ***Security***
- ***Organisational house-style or brand guidelines***
- ***Local guidelines for working with IT and storage of information***

Outcome 2 Evaluate the selection and use of IT tools to make sure that activities are successful

The learner should be able to and understand:

Strengths and weaknesses of final work:

- ***Format, layout***
- ***Accuracy***
- ***Clarity for audience***
  - ***Structure ,style***
  - ***Quality, efficiency***

Review use of IT tools:

- *Evaluate whether the IT tools and techniques are appropriate to the task and intended outcome*
- *Run user tests*
- *Compare with other IT tools and techniques*
- *Find ways to optimise the choice and approach*

Improvements to work:

- *Correct mistakes*
- *Avoid affecting other people's work*
- *More efficient and effective ways of doing things, learning new techniques*
- *Ways to improve others' or organisational efficiency*

Give feedback:

- *Strengths, weaknesses, potential improvements*

Outcome 3 Devise solutions to improve the use of IT tools and systems for self and others

The learner should be able to and understand:

Ways to improve productivity and efficiency:

- *Save time*
- *Save money*
- *Streamline work processes*
- *Increase output*
- *Improve quality of outputs*
- *Total cost of solution*
- *Business benefit*

Develop solutions:

- *Set up short cuts*
- *Customise interface*
- *Record macros*
- *Create templates*
- *Create style guides*
- *Streamline business processes*

Unit 303 Set up an IT system

Level: ***3***
Credit value: ***5***

Unit aim
This unit is about the ability to safely set up the components of an IT system (eg personal computer - PC, keyboard, mouse and printer), removable storage media (eg data stick or external DVD drive), communication service to access the Internet and associated software and check that they are working properly. On completion of this unit the candidate should be able to select and connect up an IT system with a range of hardware, removable storage media and a communication service safely and successfully and is able to help others to do so.

Examples of context: Re-configuring a PC after a new hard disk has been installed.

Learning outcomes
There are four learning outcomes to this unit.
The learner will:

1. ***Select and connect up a personal computer safely with associated hardware and storage media to meet needs***
2. ***Select and connect IT system to a communication service successfully to meet needs***
3. ***Install and configure operating system and application software for use***
4. ***Check that the IT system and communication service are working successfully***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 303 Set up an IT system
Learning outcomes and assessment criteria

Outcome 1 Select and connect up a personal computer safely with associated hardware and storage media to meet needs

The learner can:

1. ***Explain the reasons for choosing different system components and how to avoid any compatibility issues between hardware and software***
2. ***Explain any health and safety issues associated with setting up an IT system***
3. ***Explain the characteristics of IT systems that affect performance***
4. ***Select and connect up the components of an IT system safely, including any peripheral devices and storage media***

Outcome 2 Select and connect IT system to a communication service successfully to meet needs

The learner can:

1. ***Explain the reasons for choosing a communication service***
2. ***Explain what effect variations in data transmission speed may have***
3. ***Select and connect communication hardware safely to an IT system***
4. ***Select and connect to a communication service from an IT system***
5. ***Explain the factors which influence choice of Internet Service Providers***

Outcome 3 Install and configure operating system and application software for use

The learner can:

1. ***Configure the user interface to meet needs***
2. ***Explain what security precautions need to be addressed for the system to be used securely online by several users***
3. ***Install, set up and configure virus protection and other security systems and software***
4. ***Explain the benefits and risks of using disk partitions or other backup locations***
5. ***Establish a backup routine for data and system***
6. ***Install, set up and configure application software to meet needs***

Outcome 4 Check that the IT system and communication service are working successfully

The learner can:

1. ***Explain what system tests and communication tests are needed and why***
2. ***Select and run suitable tests to make sure that the system and communication service are working successfully***
3. ***Explain the range of help and troubleshooting facilities available to solve problems***
4. ***Establish procedures for recovery in the event of system faults or failure***
5. ***Respond to faults and error messages and use help and troubleshooting facilities to determine and take appropriate action***

Teaching 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.

Outcome 1 Select and connect up a personal computer safely with associated hardware and storage media to meet needs

The learner should be able to and understand:

Compatibility issues:

- ***What problems can occur when hardware, software and operating systems are not compatible;***
- ***Why compatibility standards are needed***

Health and safety issues:

- ***Health and safety issues: risks from hardware, electrical connection risks and guidelines, use and disposal of cleaning materials, handling equipment***
- ***Risks to self and others from using hardware; health and safety point of contact***

IT system performance:

- ***Processor speed, memory size, storage capacity, network capability; graphics; display adapter***

IT system components:

- ***Will vary according to the set up, for example: personal computer or other systems, monitor, keyboard, mouse (or other pointing device)***

Peripheral devices:

- ***Speakers, modem, scanner, games console, joystick; TV, data projector, white board***
- ***Plug and play devices***
- ***Customised setup routines***
- ***Printer and other device drivers***

Storage media:

- ***Disk, CD/DVD, data/memory stick, media card, mobile device, removable hard drive***
- ***Customised setup routines***
- ***Backup media***

Reasons for choosing storage media:

- ***Performance, capacity, accessibility, portability, security***

Outcome 2 Select and connect IT system to a communication service successfully to meet needs

The learner should be able to and understand:

Communication hardware:

- ***Router, modem, mobile data device, wireless router***
- ***Cables, power supply***
- ***USB. parallel, serial connections***

Communication service:

- ***Broadband, dial up, wireless, network, mobile device***
- ***ISP, IP configuration***

Data transmission speed:

- ***Which combinations of hardware and software offer very fast or slower data transmission speeds***
- ***Download capacity***
- ***How much speeds in transmitting, receiving and sending data may vary***

Outcome 3 Install and configure operating system and application software for use

The learner should be able to and understand:

User interface:

- ***Operating system, date, time, language settings***
- ***Set up administrator and user accounts***
- ***Desktop shortcuts, customise start-up; memory usage***
- ***Power management***

Security systems:

- ***Firewall, spyware, anti-spam software***

System backup:

- ***Disk partition, removable storage, disk or tape rotation, system restore points, physical location of backup***

Set up files and software applications:

- ***Software licence; installation disks; manuals***
- ***Customised settings for operating system***
- ***Map network drive***
- ***Register software***
- ***Download software, custom installations***

Outcome 4 Check that the IT system and communication service are working successfully

The learner should be able to and understand:

System tests:

- ***Hardware and software***
- ***Check printer and printer drivers, print test pages***
- ***Check files are saved on storage media***
- ***Open and close applications – including accessing across a network***
- ***Open and close files – including accessing across a network***
- ***Certificates and labelling***
- ***De-frag, delete unwanted system files***
- ***Check backup strategy***
- ***Restore system files, restore data files***

Communication tests:

- ***Send and receive test email***
- ***Navigate to ISP website***
- ***Ping IP address; check transmission speed***

Recovery procedures:

- ***Logs and records of system components and licensed software***
- ***Boot disk; system restore and backup***

Unit 304 Optimise IT system performance

Level: ***3***
Credit value: ***5***

Unit aims
This is the ability to keep a personal computer system up to date, fully functional and operating efficiently; and to solve problems and errors involving the interaction between hardware and software components.

On completion of this unit the candidate should be able to review and modify system settings to improve economy, efficiency and performance; and upgrade systems to improve capacity or functionality

Examples of context: Partitioning disks; identify and manage backup and storage procedures;
adding memory; upgrade software

Learning outcomes
There are 5 learning outcomes to this unit. The learner will be able to:

1. ***Keep computer hardware and software operating efficiently***
2. ***Manage files to maintain and improve performance***
3. ***Troubleshoot and respond to IT system problems quickly and effectively***
4. ***Plan and monitor the routine and non-routine maintenance of hardware and software***
5. ***Review and modify hardware and software to maintain performance***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***

- ***scenario***

Unit 304 Optimise IT system performance
Learning outcomes and assessment criteria

Outcome 1 Keep computer hardware and software operating efficiently

The learner can:

1. ***Explain the factors that should be taken into account when choosing an operating system***
2. ***Take appropriate steps to protect computer hardware from loss or damage***
3. ***Explain why routine fault-finding procedures are important***
4. ***Use an appropriate fault-finding procedure to routinely monitor hardware performance***
5. ***Configure anti-virus and other security software***
6. ***Install and configure printers and other peripheral devices***
7. ***Configure synchronisation and maintain security on remote access sessions***
8. ***Configure a computer to present or display information to an audience***

Outcome 2 Manage files to maintain and improve performance

The learner can:

1. ***Explain why it is important to undertake file housekeeping of the information stored on computer systems and how it affects performance***
2. ***Use file navigation software to organise files into an appropriate folder structure***
3. ***Archive, backup and restore files and folders***
4. ***Manage file and disk housekeeping so that information is secure and easy to find***
5. ***Configure access to remote file systems***
6. ***Distinguish between data and system file types***

Outcome 3 Troubleshoot and respond to IT system problems quickly and effectively

The learner can:

1. ***Assess IT system problems, explain what causes them and how to respond to them and avoid similar problems in the future***
2. ***Carry out contingency planning to recover from system failure and data loss***
3. ***Monitor and record IT system problems to enable effective response***
4. ***Monitor system settings and adjust when necessary***
5. ***Explain when and where to get expert advice***
6. ***Help others to select and use appropriate resources to respond to IT system problems***
7. ***Check that errors and problems have been resolved satisfactorily***

Outcome 4 Plan and monitor the routine and non-routine maintenance of hardware and software

The learner can:

1. ***Clarify the resources that will be needed to carry out maintenance***
2. ***Develop a plan for the maintenance of IT hardware and software***

3. Monitor the implementation of maintenance plans, updating them where necessary

Outcome 5 Review and modify hardware and software to maintain performance

The learner can:

1. Use appropriate techniques to maintain software for optimum performance
2. Clarify when and how to upgrade software
3. Review and modify hardware settings to maintain performance

Teaching 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.

Outcome 1 Keep computer hardware and software operating efficiently

The learner should be able to and understand:

Fault finding procedures:

- ***Recommended by the manufacturer, diagnostic tools and probes; maintain fault log***

Security software:

- ***Anti-virus, malware. Frequency; timing; updates, firewall settings***

Characteristics of operating systems:

- ***Cost, ease of use, compatibility with software, proprietary or open source; availability of support; additional features***

Outcome 2 Manage files to maintain and improve performance

The learner should be able to and understand:

Information storage:

- ***Data files, folders, sub-folders, storage media; archives***

File housekeeping:

- ***Naming and labelling conventions; organising files, folders and storage media; saving back-ups; deleting unwanted files; changing default settings for saving data; file and folder options; sharing and synchronising files; disk management***

Outcome 3 Troubleshoot and respond to IT system problems quickly and effectively

The learner should be able to and understand:

IT system problems:

- ***Program not responding, paper jam, storage full, error dialogue, virus threat, memory low; connection loss; hardware and software compatibility problems, system slow; intermittent errors; technically complex or serious errors; unrecoverable system failure***

Record problems:

- ***Error log, description, frequency of occurrence, severity; impact***

Expert advice:

- ***Limits of own understanding and skills, help menus, manufacturer's guidelines, how to follow advice, information needed by experts, where to get advice to deal with different hardware and software problems***

System settings:

- ***Basic input/output settings (BIOS), memory usage, display settings, network settings, power usage***

Outcome 4 Plan and monitor the routine and non-routine maintenance of hardware and software

The learner should be able to and understand:

Maintenance plans:

- ***Finance, expertise, materials, equipment***

Outcome 5 Review and modify hardware and software to maintain performance

The learner should be able to and understand:

Maintain software:

- ***Install software patches and upgrades, install and uninstall software, install operating system upgrades; install maintenance updates; administrative tools and procedures***

Upgrade software:

- ***Benefits of upgrading, drawbacks of not upgrading, the need to check compatibility of software and hardware upgrades with other parts of the system, the importance of keeping up-to-date, return on investment***

Unit 305 IT security for users

Level: ***3***
Credit value: ***3***

Unit aim
This is the ability to protect hardware, software malfunction and unauthorised access. On completion of this unit the candidate should be able to monitor potential risks and take steps to protect their own and others' systems, data and software (eg from unauthorised remote access, disaster recovery or contingency planning).

Examples of context: Develop backup and security guidelines for others to follow. Setting up a backup and recovery plan for a small business running a peer to peer network. In larger organisations, aspects relating to security policy and practice at Level 3 may be the responsibility of IT professionals.

Learning outcomes
There is one learning outcome to this unit.

The learner will:

1. ***Select, use and develop appropriate procedures to monitor and minimise security risk to IT systems and data***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 305 IT security for users

Learning outcomes and assessment criteria

Outcome 1 Select, use and develop appropriate procedures to monitor and minimise security risk to IT systems and data

The learner can:

1. ***Evaluate the security issues that may threaten system performance***
2. ***Select, use and evaluate a range of security precautions to protect IT systems and monitor security***
3. ***Evaluate the threats to system and information security and integrity***
4. ***Manage access to information sources securely to maintain confidentiality, integrity and availability of information***
5. ***Explain why and how to minimise security risks to hardware, software and data for different users***
6. ***Apply, maintain and develop guidelines and procedures for the secure use of IT***
7. ***Select and use effective backup and archiving procedures for systems and data***

Teaching 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.

Outcome 1 Select, use and develop appropriate procedures to monitor and minimise security risk to IT systems and data

The learner should be able to and understand:

Threats to system performance:

- ***Unwanted e-mail (often referred to as "spam"), malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers) and hackers; hoaxes; vulnerability***

Security precautions:

- ***Use access controls***
- ***Configure anti-virus software, adjust firewall settings, adjust internet security settings; carry out security checks, report security threats or breaches; backup; store personal data and software safely; treat messages, files, software and attachments from unknown sources***
- ***with caution; proxy servers; download security software patches and updates; effectiveness of security measures;***

Threats to information security:

- ***From theft, unauthorised access, accidental file deletion, use of removable storage media; malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers), hackers, phishing and identity theft***
- ***Uunsecured and public networks, default passwords and settings, wireless networks, Bluetooth, portable and USB devices***

Access to information sources:

- ***Username and password/PIN selection and management, online identity/profiles***
- ***Respect confidentiality, avoid inappropriate disclosure of information***
- ***Digital signatures, data encryption, security classification, preserve availability***

Minimise risk:

- ***Access controls: physical controls, locks, passwords, access levels, data protection, data retention.***
- ***Security measures: anti-virus software, firewalls, security software and settings***
- ***Risk assessment: anti-spam software, software updates***
- ***Risk management: user profiles, operating system settings, user authentication (ID cards, smart cards, biometrics)***
- ***Risks associated with widespread use of technology***

Security guidelines and procedures:

- ***Set by: employer or organisation or centre***
- ***Privacy, laws and regulations***
- ***Disaster recovery plans, contingency systems, dealing with security breaches, backup procedures; administrative procedures and controls***

Unit 307 Using the internet

Level: ***3***
Credit value: ***5***

Unit aims

This is the ability to set up and use appropriate connection methods to access the Internet; make the best use of browser software tools and techniques to search for, retrieve and exchange information using a browser or public search engine, and work safely and securely online.

On completion of this unit a candidate should be able to advise on and set up an Internet connection to meet a variety of user needs. They can also make efficient use of advanced Internet software tools and techniques to search for and exchange information for complex and non-routine activities.

Internet tools and techniques will be defined as 'advanced' because:

- ***the software tools and functions required will be described as complex because at times they involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying; and***
- ***the range of techniques required for searching and exchanging information will be complex, and the selection process may involve research, identification and application.***

Examples of context: Setting up an Internet connection for use by others; developing and promoting organisational guidelines and procedures for Internet safety; setting up and moderating the content of a discussion forum

Learning outcomes

There are 5 learning outcomes to this unit. The learner will be able to:

1. ***Select and set up an appropriate connection to access the Internet***
2. ***Set up and use browser software to navigate webpages***
3. ***Use browser tools to search effectively and efficiently for information from the Internet***
4. ***Use browser software to communicate information online***
5. ***Develop and apply appropriate safety and security practices and procedures when working online***

Guided learning hours

It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***

- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 307 Using the internet
Learning outcomes and assessment criteria

Outcome 1 Select and set up an appropriate connection to access the Internet

The learner can:

1. *Identify different types of connection methods that can be used to access the Internet*
2. *Explain the benefits and drawbacks of different connection methods*
3. *Analyse the issues affecting different groups of users*
4. *Select and set up an Internet connection using an appropriate combination of hardware and software*
5. *Recommend a connection method for Internet access to meet identified needs*
6. *Diagnose and solve Internet connection problems*

Outcome 2 Set up and use browser software to navigate webpages

The learner can:

1. *Select and use browser tools to navigate webpages effectively*
2. *Explain when to change browser settings to aid navigation*
3. *Adjust and monitor browser settings to maintain and improve performance*
4. *Explain when and how to improve browser performance*
5. *Customise browser software to make it easier to use*

Outcome 3 Use browser tools to search effectively and efficiently for information from the Internet

The learner can:

1. *Select and use appropriate search techniques to locate information efficiently*
2. *Evaluate how well information meets requirements*
3. *Manage and use references to make it easier to find information another time*
4. *Download, organise and store different types of information from the Internet*

Outcome 4 Use browser software to communicate information online

The learner can:

1. *Identify and analyse opportunities to create, post or publish material to websites*
2. *Select and use appropriate tools and techniques to communicate information online*
3. *Share and submit information online using appropriate language and moderate content from others*

Outcome 5 Develop and apply appropriate safety and security practices and procedures when working online

The learner can:

1. *Explain the threats to system performance when working online*
2. *Work responsibly and take appropriate safety and security precautions when working online*
3. *Explain the threats to information security and integrity when working online*
4. *Keep information secure and manage user access to online sources securely*

5. *Explain the threats to user safety when working online*
6. *Explain how to minimise internet security risks*
7. *Develop and promote laws, guidelines and procedures for safe and secure use of the Internet*

Teaching 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.

Outcome 1 Select and set up an appropriate connection to access the Internet

The learner should be able to and understand:

Connection methods:

- ***LAN, VPN, modem, router, wireless, broadband, dial-up***
- ***Cable, DSL; mobile phone with wireless application protocol (WAP) or 3rd Generation (3G) technology***
- ***Intranet server (eg via parallel, serial or USB connections), extranet***

Benefits and drawbacks of connection methods:

- ***Speed, stability, accessibility, frequency of connection problems, additional services offered by ISP, cost, security***

Users:

- ***New users, learners, those with restricted access, those with disabilities***

Set up an Internet connection:

- ***Identifying and selecting ISP, connecting hardware, installing and configuring software, setting up and testing operation of connection***
- ***Limiting access***

Outcome 2 Set up and use browser software to navigate webpages

The learner should be able to and understand:

Browser tools:

- ***Enter, back, forward, refresh, history, bookmark, new window, new tab***
- ***Toolbar, search bar, address bar***
- ***Home, go to, follow link, URL***
- ***Save web address, save as, downloads, temporary files***

Browser settings:

- ***Security, pop-ups, appearance, privacy, personalisation, accessibility, software updates, temporary file storage, browser options, add-ons, RSS feeds, connections, search settings, content***

Browser performance:

- ***Delete cache, delete temporary files, work offline, save websites, benchmark tests***

Outcome 3 Use browser tools to search effectively and efficiently for information from the Internet

The learner should be able to and understand:

Search techniques:

- ***Search key words, quotation marks, search within results, relational operators, 'find' or search tools***
- ***Search engine features, multiple search criteria, Boolean operators, wild cards***

Information requirements:

- ***Reliability, accuracy, currency, sufficiency, relevance, level of detail***
- ***Recognise intention and authority of provider, bias***
- ***Synthesize information from a variety of sources; verify information***

References:

- ***History, favourites, manage bookmarks and links, RSS, data feeds, saved search results;***

Download information:

- ***Webpage, website; images, text, numbers, sound, games, video, TV, music; software, patches***

Outcome 4 Use browser software to communicate information online

The learner should be able to and understand:

Communicate information:

- ***Saved information (pod-casts, text, images), real time information (blogs, instant messaging; virtual meetings), file transfer protocol [FTP], hypertext transmission protocol [http]***
- ***VOIP***

Share information sources:

- ***Send link, send webpage reference lists, data feeds,***

Submit information:

- ***Fill-in and submit web forms; ratings, reviews, recommendations***
- ***Wikis***
- ***Discussion forums; interactive sites***
- ***Netiquette***

Outcome 5 Develop and apply appropriate safety and security practices and procedures when working online

The learner should be able to and understand:

Threats to system performance:

- ***Unwanted e-mail (often referred to as "spam"), malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers) and hackers***
- ***Hoaxes***

Safety precautions:

- ***Firewall settings, Internet security settings***
- ***Report inappropriate behaviour, report security threats or breaches***
- ***Netiquette, content filtering, avoid inappropriate disclosure of information, carry out security checks, proxy servers***

Information security:

- ***Username and password/PIN selection and management, password strength, online identity/profile, real name, pseudonym, avatar***
- ***What personal information to include, who can see the information, withhold personal information***

Threats to information security:

- ***Malicious programs (including viruses, worms, trojans, spyware, adware and rogue diallers), hackers, phishing and identity theft***

Threats to user safety:

- ***Abusive behaviour ("cyber bullying"), inappropriate behaviour and grooming, abuse of young people***
- ***False identities, financial deception, identity theft***

Minimise risk:

- ***Virus-checking software, anti-spam software, firewall***
- ***Treat messages, files, software and attachments from unknown sources with caution, internet settings, block sites, parental controls***

Laws, guidelines and procedures:

- ***Set by employer or organisation or centre relating to Health and safety, security, equal opportunities, disability***
- ***Laws: relating to copyright, software download and licensing, digital rights, IPR, health and safety***

Unit 308 Using e-mail

Level: ***3***
Credit value: ***3***

Unit aims
This is the ability to make the best use of e-mail software to safely and securely send, receive and store messages.

On completion of this unit a candidate should be able to help others to make more efficient use of e- mail software tools to send, receive and store messages for complex and non-routine activities.

E-mail tools and techniques will be defined as 'advanced' because:
- ***the techniques required will be multi-step and complex, and the selection process may involve research, identification and application; and***
- ***the IT tools required will be complex and at times involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying.***

Examples of context: Set up rules for automatic filtering and responses to incoming messages;
create templates for automating email replies

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:
1. ***Use e-mail software tools and techniques to compose and send messages***
2. ***Manage use of e-mail software effectively***

Guided learning hours
It is recommended that 20 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:
- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 308 Using e-mail
Learning outcomes and assessment criteria

Outcome 1 Use e-mail software tools and techniques to compose and send messages

The learner can:

1. *Select and use software tools to compose and format e-mail messages, including attachments*
2. *Explain methods to improve message transmission*
3. *Send e-mail messages to individuals and groups*
4. *Explain why and how to stay safe and respect others when using e-mail*
5. *Use an address book to manage contact information*

Outcome 2 Manage use of e-mail software effectively

The learner can:

1. *Develop and communicate guidelines and procedures for using e-mail effectively*
2. *Read and respond appropriately to e-mail messages and attachments*
3. *Use email software tools and techniques to automate responses*
4. *Explain why, how and when to archive messages*
5. *Organise, store and archive e-mail messages effectively*
6. *Customise e-mail software to make it easier to use*
7. *Explain how to minimise e-mail problems*
8. *Respond appropriately to email problems*

Teaching 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.

Outcome 1 Use e-mail software tools and techniques to compose and send messages

The learner should be able to and understand:

Compose and format e-mail:

- ***Format text (font, size, colour)***
- ***Format paragraphs (alignment, bullets, numbered list), spell check, priority***
- ***Format (rtf, plain text, html), draft, signature, page set up, backgrounds, sound, movie, hyperlink, work on- and offline***

Message transmission:

- ***Managing attachments***
- ***Mailbox restrictions***
- ***Methods to reduce size or improve transmission***
- ***Transmission limitations***

Send e-mail:

- ***To, from, cc, bcc, subject***
- ***Reply, reply all, forward, distribution list, reply with history***
- ***Options, set message flags for priority, confidentiality, response request, vote.***
- ***Encoding, schedules, encryption, compression***

Address book:

- ***Add, edit, delete contact entries***
- ***Contacts list, distribution list, sort, display selected fields***
- ***Import and export contact information, merge lists, synchronise***

Stay safe:

- ***Avoid inappropriate disclosure of personal information***
- ***Avoid misuse of images***
- ***Use appropriate language, respect confidentiality***
- ***Use copy lists with discrimination***
- ***Using encryption***

Outcome 2 Manage use of e-mail software effectively

The learner should be able to and understand:

Guidelines and procedures:

- ***Set by employer or organisation or centre,***
- ***Health and safety, security, copyright***
- ***Netiquette***
- ***Password protection***

Automate responses:

- ***Rules, automatic replies, changing settings to deal with junk mail***
- ***Out of office, scheduling***
- ***Templates***

E-mail responses:

- ***Decide on priorities, gather information needed to respond, decide when and who to copy in, what to do about attachments***
- ***Reduce unwanted e-mail, manage time***

Organise and store e-mail:

- ***Folders, subfolders, delete unwanted messages, backup, address lists, move after sending, rules, archive folders***
- ***Attachments, file compression***
- ***Public folders***

E-mail problems:

- ***Due to message size or number of attachments, messages from unknown users (SPAM, junk, chain-mails, 'phishing'), viruses***
- ***Messages intended to cause problems***
- ***Mailbox full***
- ***Identifying when problems are local or linked to the service provided by ISP***

Unit 309 Using collaborative technologies

Level: ***3***
Credit value: ***6***

Unit aim
This is the ability to use IT tools and devices for collaborative working and communications, such as web or video conferencing, instant messaging/chat, online phone and video calls; online forums, social networking sites, wikis and other centralised depositories for documents, blogging, RSS and data feeds, bulk SMS or online work management tools.

On completion of this unit a candidate should be able to manage and effectively integrate and facilitate the safe use of multiple IT tools and devices so that groups can work collaboratively and effectively by:

- ***setting and implementing guidelines for using collaborative technologies;***
- ***integrating IT tools and devices and creating environments to exploit their potential;***
- ***managing risks, permissions and data flow; and***
- ***moderating and solving complex problems with the use of collaborative technologies;***

Examples of context: Typical collaborative activities may include – developing guidelines and instructions for a work team about the use of social networking; moderating online conference sessions or web discussion groups for a professional community of interest.

Learning outcomes
There are four learning outcomes to this unit.

The learner will:

1. ***Stay safe and secure when working with collaborative technology***
2. ***Plan and set up IT tools and devices for collaborative working***
3. ***Prepare collaborative technologies for use***
4. ***Manage tasks using collaborative technologies***

It is recommended that 45 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e- Guided learning hours Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 309 Using collaborative technologies
Learning outcomes and assessment criteria

Outcome 1 Stay safe and secure when working with collaborative technology

The learner can:

1. ***Explain what and why guidelines need to be established for working with collaborative technology***
2. ***Develop and implement guidelines for good practice in working with collaborative technology***
3. ***Explain how to establish an identity or present information that will promote trust***
4. ***Develop and implement guidelines for checking the authenticity of identities and different types of information***
5. ***Analyse and plan for the risks in the use of collaborative technologies for different tasks***
6. ***Analyse and manage risks in the use of collaborative technologies***

Outcome 2 Plan and set up IT tools and devices for collaborative working

The learner can:

1. ***Explain the features, benefits and limitations of different collaborative IT tools and devices for work purposes and tasks***
2. ***Determine the IT tools and processes needed for archiving the outcomes of collaborative working***
3. ***Summarise ways to integrate different collaborative technology tools and devices for a range of purposes, tasks and communication media***
4. ***Explain potential access and compatibility issues with integrating different collaborative technology tools and devices***
5. ***Select, connect and configure combinations that exploit the capabilities and potential of collaborative tools and devices***
6. ***Resolve access and compatibility problems so that different collaborative tools and devices work successfully***

Outcome 3 Prepare collaborative technologies for use

The learner can:

1. *Evaluate data management principles, issues and methods*
2. *Manage levels of access and permissions for different purposes*
3. *Select and integrate different elements across applications to create environments for collaborative technologies*
4. *Set and adjust settings to facilitate use of collaborative technologies by others*
5. *Manage data flow to benefit collaborative working*

Outcome 4 Manage tasks using collaborative technologies

The learner can:

1. *Determine levels of responsibility for the use of collaborative technologies*
2. *Facilitate others' responsible contributions to and engagement with collaborative technologies*
3. *Manage the moderation of collaborative technologies*
4. *Oversee the archiving of the outcomes of collaborative working*
5. *Explain what problems can occur with collaborative technologies*
6. *Respond to problems with collaborative technologies and be prepared to help others to do so*

Teaching 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.

Outcome 1 Stay safe and secure when working with collaborative technology

The learner should be able to and understand:

Guidelines for using collaborative technology:

- ***Guidelines set by your organisation or community of interest***
- ***About uses, security, safety, copyright, plagiarism, libel, confidentiality and data protection***
- ***Ways to communicate and promote guidelines about online security, confidentiality and data protection***
- ***Methods to promote trust:***
- ***Contact information, membership of professional bodies, recommendations, links, policies, standards***

Checks on others' identities:

- ***Compare sources, cross references***

Risks when working with collaborative technologies:

- ***Inappropriate disclosure of personal information***
- ***Misuse of images***
- ***Appropriate language, respect confidentiality, copy lists***
- ***What to do in a power cut, about data loss***
- ***Risk analysis, risk monitoring, contingency planning, updating risk management policy***

Outcome 2 Plan and set up IT tools and devices for collaborative working

The learner should be able to and understand:

Connect and configure collaborative technologies:

- ***Connect to another site, check whether both sites are connected***
- ***Connect to multiple sites, check when multiple sites are connected***
- ***Adjust clarity***
- ***IP address, adjust set-up options, the Open Systems Interconnection (OSI) model, facilities for sharing files and applications across multiple sites***

Purposes for collaborative working:

- ***Will vary according to the task, but may include:***
  - ***sharing, displaying and recording information, discussing and reflecting***
  - ***establishing identity, joining interest groups***
  - ***developing ideas, contributing to research, carrying out research***
  - ***exporting information to other formats***
  - ***establishing communities of interest***
  - ***managing identities, managing data***

Outcomes of collaborative working:

- *Measurable (eg document, minutes, notes, project plan, transcript)*
- *Ephemeral (g conversation, agreement)*
- *Whether an audit trail is needed*

Collaborative technology tools and devices:

- *Hardware: mobile, laptop, desktop, peripherals (eg headset, handset, microphone, camera, 3G modem)*
- *Software: products, services, sites*

Communication media:

- *Text, audio/spoken, still/video/animated images*

Compatibility issues:

- *Between browser software, operating systems, plug-ins*

Outcome 3 Prepare collaborative technologies for use
The learner should be able to and understand:

Access to collaborative technologies:

- *Download software, agree terms and conditions, register or set up an ID*
- *Accessibility issues, adjusting access settings*
- *Accessibility standards*

Permissions:

- *Web address, phone number, user name and password, set up user names and access codes*

Environments for collaborative technologies:

- *User interface: choose skins, templates, widgets, wizards, cut and paste from other sources*
- *Work environment: lighting, position of devices*

Adjust settings:

- *Hardware: colour, type size, window size, volume*
- *Browser: cookies, pop-ups*
- *Security settings: firewall*

Managing data:

- *Sources, subscription details, terms and conditions*
- *Aims of data management*
- *Benefits, features and limitations of networks and feeds*
- *What constraints need to be overcome, what level of restrictions to apply*

Outcome 4 Manage tasks using collaborative technologies
The learner should be able to and understand:

Contributing responsibly:

- ***Follow the rules of 'netiquette', respect others contributions, avoid dominating and not responding***
- ***Legal and cultural issues***
- ***User rules, moderations policies, ethical issues***
- ***Moderating collaborative technologies:***
- ***Reporting inappropriate content***
- ***Checking posts***

Archiving outcomes:

- ***Cut, paste, save; record, transcribe***
- ***Problems with collaborative technologies:***
- ***Routine (eg settings, software not responding, hardware connections)***
- ***Non-routine (eg access, transmission speed, bandwidth); complex (eg compatibility)***

Respond to problems:

- ***Follow on screen help, know who to ask for expert help***
- ***Use diagnostic wizards, check bandwidth***

Unit 313 Audio software

Level: *3*
Credit value: *4*

Unit aims
This is the ability to use a software application designed to record and edit audio sequences.

On completion of this unit a candidate should be able to select and use a range of advanced audio software tools and techniques to record and edit complex or non-routine audio sequences.

Audio software tools and techniques will be defined as 'advanced' because:
- ***the software tools and functions used will be complex, and at times involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, manipulating and outputting the information.***

Examples of context: Recording a series of interviews and specially scripted links using a digital Dictaphone then editing to create a short podcast; storyboarding and shooting a short promotional film sequence on location, then editing it to fit into a multimedia business presentation.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:
1. ***Use hardware and software to capture audio sequences***
2. ***Use audio software tools and techniques to edit sequences***
3. ***Play and present audio sequences***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:
- ***an assignment***

- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 313 Audio software
Learning outcomes and assessment criteria

Outcome 1 Use hardware and software to capture audio sequences

The learner can:

1. ***Determine the content needed for sequences, and when to originate it***
2. ***Explain any compatibility issues between combinations of input device and audio software***
3. ***Select and use an appropriate combination of input device and audio software to optimise the recording of information***
4. ***Select and use an appropriate combination of hardware and software to originate and develop new content for sequences***
5. ***Analyse and explain the impact file size and file format will have, including when to use information coding and compression***
6. ***Store and retrieve sequences using appropriate file formats and compression, in line with local guidelines and conventions where available***

Outcome 2 Use audio software tools and techniques to edit sequences

The learner can:

1. ***Select and use appropriate audio software tools and techniques to mark-up and edit sequences to achieve required effects***
2. ***Provide guidance on how copyright constraints affect use of own and others' information***
3. ***Organise, combine and link information for sequences in line with any copyright constraints, including across different software***

Outcome 3 Play and present audio sequences

The learner can:

1. ***Explain the features and constraints of playback software and display devices as appropriate for different purposes***
2. ***Select and use an appropriate combination of audio or video playback software and display device to suit the file format***
3. ***Present sequences effectively by exploiting the features and settings of the playback software and display device to maximise quality and meet needs***
4. ***Evaluate the quality of sequences and explain how to respond to quality issues and problems***

Teaching 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.

Outcome 1 Use hardware and software to capture audio sequences

The learner should be able to and understand:

Audio compatibility issues:

- ***Between built-in codec used by input device, available editing software, file formats, operating systems, plug-ins***

Input devices:

- ***Video camera, microphone, Dictaphone, mobile phone***
- ***Difference between analogue and digital***
- ***Input techniques:***
  - ***copy and paste, screen grabs/shots, file download (eg connect USB lead, drag and drop)***

Originate and develop:

- ***Process: plan (eg storyboard, script, compose), prepare (eg information, equipment), develop, test, refine***
- ***Types of content:***
  - ***audio (eg music, sound effects, voiceovers)***

File size:

- ***Small, medium, large***
- ***Link between size and quality***

File format:

- ***Proprietary formats supported by software used (eg QuickTime, RealPlayer, iTunes)***
- ***Container formats: Audio (eg WAV, XMF, AIFF); Audio/video (eg 3GP, AVI, MP4, OGG, MOV)***
- ***Popularity, overhead, support for advanced functionality and content***
- ***Support of streaming media***

Information coding and compression:

- ***Codec, compression, difference between lossy and lossless compression***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find, share), file size, file properties***
- ***Version control***
- ***Import data, export data***
- ***Folders (eg create, name)***
- ***Archive (backup, restore))***

Outcome 2 Use audio software tools and techniques to edit sequences

The learner should be able to and understand:

Sequence:
- ***Short (eg 2 mins), b&w, medium length (eg 10 mins, 30 mins)***

Marking-up and editing tools:
- ***Preset by software, key frames***
- ***Sequences; cut, copy, paste, sequence, special effects***

Combine information:
- ***Combine sound with images (eg dub or overlay sound track onto film sequence, integrate audio sequence with another application)***
- ***Techniques:***
  - ***copy and paste, insert***
- ***File download (eg connect USB lead, drag and drop), File Transfer Protocol (FTP)***
- ***Forms of information:***

Sound: pre-recorded, live, web-streaming

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions.***

Outcome 3 Play and present audio sequences

The learner should be able to and understand:

Features and constraints:
- ***Software supported, memory, processing speed, screen resolution, data bandwidth, transmission speeds***

Display device:
- ***PC, laptop, video camera, Dictaphone, mobile phone, handheld audio or video device (eg mp3 player, iPod)***

Audio/Video quality issues:
- ***Volume, sound (eg clicks, disjoints, noise), unwanted objects***

Adjust playback and display settings:
- ***Playback controls, sound***
- ***Sound quality***

Unit 314 Video software

Level: ***3***
Credit value: ***4***

Unit aims
This is the ability to use a software application designed to record and edit video sequences.

On completion of this unit a candidate should be able to select and use a range of advanced video software tools and techniques to record and edit complex or non-routine video sequences.

Video software tools and techniques will be defined as 'advanced' because:

- ***the software tools and functions used will be complex, and at times involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, manipulating and outputting the information.***

Examples of context: Recording a series of interviews and specially scripted links and then editing to create a short podcast; storyboarding and shooting a short promotional film sequence on location, then editing it to fit into a multimedia business presentation.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Use hardware and software to capture video sequences***
2. ***Use video software tools and techniques to edit sequences***
3. ***Play and present video sequences***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***

- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 314 Video software
Learning outcomes and assessment criteria

Outcome 1 Use hardware and software to capture video sequences

The learner can:

1. ***Determine the content needed for sequences, and when to originate it***
2. ***Explain any compatibility issues between combinations of input device and audio software***
3. ***Select and use an appropriate combination of input device and audio software to optimise the recording of information***
4. ***Select and use an appropriate combination of hardware and software to originate and develop new content for sequences***
5. ***Analyse and explain the impact file size and file format will have, including when to use information coding and compression***
6. ***Store and retrieve sequences using appropriate file formats and compression, in line with local guidelines and conventions where available***

Outcome 2 Use video software tools and techniques to edit sequences

The learner can:

1. ***Select and use appropriate audio software tools and techniques to mark-up and edit sequences to achieve required effects***
2. ***Provide guidance on how copyright constraints affect use of own and others' information***
3. ***Organise, combine and link information for sequences in line with any copyright constraints, including across different software***

Outcome 3 Play and present video sequences

The learner can:

1. ***Explain the features and constraints of playback software and display devices as appropriate for different purposes***
2. ***Select and use an appropriate combination of audio or video playback software and display device to suit the file format***
3. ***Present sequences effectively by exploiting the features and settings of the playback software and display device to maximise quality and meet needs***
4. ***Evaluate the quality of sequences and explain how to respond to quality issues and problems***

Teaching 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.

Outcome 1 Use hardware and software to capture video sequences

The learner should be able to and understand:

Video compatibility issues:
- ***Between built-in codec used by input device, available editing software, file formats, operating systems, plug-ins***

Input devices:
- ***Webcam, video camera, mobile phone***
- ***Difference between analogue and digital***
- ***Low and high resolution***
- ***Input techniques:***
  - ***copy and paste, screen grabs/shots, file download (eg connect USB lead, drag and drop)***

Originate and develop:
- ***Process: plan (eg storyboard, script, compose), prepare (eg information, equipment), develop, test, refine***
- ***Types of content:***
  - ***audio (eg music, sound effects, voiceovers)***
  - ***visual (eg drama, dance, animation)***

File size:
- ***Small, medium, large***
- ***Link between size and quality (eg small – low resolution; large – high resolution)***

File format:
- ***Proprietary formats supported by software used (eg QuickTime, RealPlayer, iTunes)***
- ***Container formats:***
  - ***Audio (eg WAV, XMF, AIFF); Audio/video (eg 3GP, AVI, MP4, OGG, MOV)***
- ***Popularity, overhead, support for advanced functionality and content***
- ***Support of streaming media***

Information coding and compression:
- ***Codec, compression, difference between lossy and lossless compression***
- ***Factors affecting video quality***

Store and retrieve:
- ***Files (eg create, name, open, save, save as, print, close, find, share), file size, file properties***
- ***Version control***
- ***Import data, export data***
- ***Folders (eg create, name)***
- ***Archive (backup, restore))***

Outcome 2 Use video software tools and techniques to edit sequences

The learner should be able to and understand:

Sequence:
- ***Short (eg 2 mins), b&w, medium length (eg 10 mins, 30 mins), colour***

Marking-up and editing tools:
- ***Preset by software, key frames***
- ***Sequences; cut, copy, paste, sequence, special effects***

Combine information:
- ***Combine images with sound (eg dub or overlay sound track onto film sequence, integrate audio or video sequence with another application)***
- ***Techniques:***
  - ***copy and paste, insert, screen grabs/shots***
- ***File download (eg connect USB lead, drag and drop), File Transfer Protocol (FTP)***
- ***Forms of information:***
  - ***moving images***
  - ***sound: pre-recorded, live, web-streaming***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions.***

Outcome 3 Play and present video sequences

The learner should be able to and understand:

Features and constraints:
- ***Software supported, memory, processing speed, screen resolution, data bandwidth, transmission speeds***

Display device:
- ***PC, laptop, video camera, mobile phone, handheld video device (eg mp3 player, iPod)***

Audio/Video quality issues:
- ***High or low contrast, volume, visual (eg colour balance, jerkiness, dropping frames, break-up, freezes, blurriness, pixilation), sound (eg clicks, disjoints, noise), unwanted objects***

Adjust playback and display settings:
- ***Playback controls, sound***
- ***Screen size: visual, screen resolution, colour balance, sound quality***

Unit 315 Bespoke software

Level: ***3***
Credit value: ***4***

Unit aim
This is the ability to select and use a suitable bespoke software application to carry out an appropriate data processing task. It includes understanding the capabilities of the software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the software application appropriately and effectively. On completion of this unit a candidate should be able to select and use a range of advanced bespoke software tools and techniques for complex or non- routine information.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Input and combine information using bespoke software***
2. ***Create and modify appropriate structures to organise and retrieve information efficiently***
3. ***Exploit the functions of the software effectively to process and present information***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 315 Bespoke software
Learning outcomes and assessment criteria

Outcome 1 Input and combine information using bespoke software

The learner can:

1. ***Input relevant information accurately so that it is ready for processing***
2. ***Select and use appropriate techniques to link and combine information within the application and across different software applications***

Outcome 2 Create and modify appropriate structures to organise and retrieve information efficiently

The learner can:

1. ***Evaluate the use of software functions to structure, layout and style information***
2. ***Create, change and use appropriate structures and/or layouts to organise information efficiently***
3. ***Manage data files effectively, in line with local and/or legal guidelines and conventions for the storage and use of data where available***

Outcome 3 Exploit the functions of the software effectively to process and present information

The learner can:

1. ***Select and use appropriate tools and techniques to edit, analyse and format information***
2. ***Check information meets needs, using IT tools and making corrections as necessary***
3. ***Identify and respond appropriately to quality problems to ensure that outcomes are fit for purpose and meet needs***
4. ***Select and use presentation methods to aid clarity and meaning***

Teaching 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.

Outcome 1 Input and combine information using bespoke software

The learner should be able to and understand:

Types of bespoke information:

- ***Information will vary according to the software for example, text, numbers, photos, scanned images, graphic elements, digital recorded sound, graphs, charts, tables***

Inputting information:

- ***Inputting tools and techniques will vary according to the technology being used for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***
  - ***shortcuts, customise keys***

File types and software:

- ***Text (eg rtf, doc, pdf)***
- ***Images (eg jpeg, tiff, psd)***
- ***Charts and graphs (eg xls)***
- ***Sound (eg wav, MP3)***

Combining information techniques:

- ***Insert, size, position, wrap, order, group***
- ***Links and references to external data***
- ***Version control***
- ***Import data, export data***

Outcome 2 Create and modify appropriate structures to organise and retrieve information efficiently

The learner should be able to and understand:

Structures, layouts and conventions:

- ***Apply and change existing templates, set up templates for common information***
- ***Apply or change existing styles, set up styles for information***

Manage data files:

- ***File storage, data import and export, restore lost data***
- ***Identify ineffective backup storage***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application***

Outcome 3 Exploit the functions of the software effectively to process and present information

The learner should be able to and understand:

Editing, analysis and formatting techniques:

- ***Techniques will vary according to the software and task, for example:***
  - ***Editing: select, insert, delete, cut, copy, paste, drag and drop, find, replace, page layout, labelling, alignment, orientation, colour, resolution, size, pitch***
  - ***Analysis: design queries, mathematical, logical or statistical functions***
  - ***Formatting: characters, lines, paragraphs, pages, file type***

Check information:

- ***Checks will vary according to the type of information and software, but could include:***
  - ***spell check, grammar check***
  - ***accuracy of figures***
  - ***labelling and size of images***
  - ***volume of sound***
  - ***quality of images and sound***
  - ***line, paragraph and page breaks fall appropriately***
  - ***formatting is consistent, the use of headings and subheadings aid clarity***
  - ***the placing of images or sound clips***

Quality problems with outcomes:

- ***Will vary according to the content, for example:***
  - ***text (eg formatting, structure)***
  - ***images (eg size, position, orientation)***
  - ***numbers (eg decimal points, accuracy of calculations)***
  - ***sound (eg volume, sound clip out of sync)***

Presentation methods:

- ***Methods will vary according to the software and task, for example:***
  - ***on screen display, publishing on a web site, hard copy print out, digital file***
- ***Organisational house style, branding***

Unit 316 Specialist software

Level: ***3***
Credit value: ***4***

Unit aims
This is the ability to select and use a suitable specialist software application to carry out an appropriate data processing task. It includes understanding the capabilities of the software and the types of tasks for which it is suitable, as well as the skills and techniques needed to use the software application appropriately and effectively.

On completion of this unit a candidate should be able to select and use a range of advanced specialist software tools and techniques for complex or non-routine information.

Specialist software tools and techniques will be defined as 'advanced' because:

- ***the software tools and functions used will be complex, and at times involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, manipulating and outputting the information.***

Learning outcomes
There are 30 learning outcomes to this unit. The learner will be able to:

1. ***Input and combine information using specialist software***
2. ***Create and modify appropriate structures to organise and retrieve information efficiently***
3. ***Exploit the functions of the software effectively to process and present information***

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

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

-
- ***portfolio of evidence – classroom or work based***

- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 316 Specialist software
Learning outcomes and assessment criteria

Outcome 1 Input and combine information using specialist software

The learner can:

1. ***Input relevant information accurately so that it is ready for processing***
2. ***Select and use appropriate techniques to link and combine information within the application and across different software applications***

Outcome 2 Create and modify appropriate structures to organise and retrieve information efficiently

The learner can:

1. ***Evaluate the use of software functions to structure, layout and style information***
2. ***Create, change and use appropriate structures and/or layouts to organise information efficiently***
3. ***Manage data files effectively, in line with local and/or legal guidelines and conventions for the storage and use of data where available***

Outcome 3 Exploit the functions of the software effectively to process and present information

The learner can:

1. ***Select and use appropriate tools and techniques to edit, analyse and format information***
2. ***Check information meets needs, using IT tools and making corrections as necessary***
3. ***Identify and respond appropriately to quality problems to ensure that outcomes are fit for purpose and meet needs***
4. ***Select and use presentation methods to aid clarity and meaning***

Teaching 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.

Outcome 1 Input and combine information using specialist software

The learner should be able to and understand:

Types of bespoke information:

- ***Information will vary according to the software for example:***
  - ***text, numbers, photos, scanned images, graphic elements, digital recorded sound, graphs, charts, tables***

Inputting information:

- ***Inputting tools and techniques will vary according to the technology being used for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***
  - ***shortcuts, customise keys***

File types and software:

- ***Text (eg rtf, doc, PDF), images (eg jpeg, tiff, psd), charts and graphs (eg xls), sound (eg wav, MP3)***

Combining information techniques:

- ***Insert, size, position, wrap, order, group***
- ***Links and references to external data***
- ***Version control***
- ***Import data, export data***

Outcome 2 Create and modify appropriate structures to organise and retrieve information efficiently

The learner should be able to and understand:

Structures, layouts and conventions:

- ***Apply and change existing templates, set up templates for common information***
- ***Apply or change existing styles, set up styles for information***

Manage data files:

- ***File storage, data import and export, restore lost data***
- ***Identify ineffective backup storage***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***

- ***File management will vary according to the application***

Outcome 3 Exploit the functions of the software effectively to process and present information

The learner should be able to and understand:

Editing, analysis and formatting techniques:

- ***Techniques will vary according to the software and task, for example:***
  - ***Editing: select, insert, delete, cut, copy, paste, drag and drop, find, replace, page layout, labelling, alignment, orientation, colour, resolution, size, pitch***
- ***Analysis: design queries, mathematical, logical or statistical functions***
- ***Formatting: characters, lines, paragraphs, pages, file type***

Check information:

- ***Checks will vary according to the type of information and software, but could include:***
  - ***spell check, grammar check***
  - ***accuracy of figures***
  - ***labelling and size of images***
  - ***volume of sound***
  - ***quality of images and sound***
  - ***line, paragraph and page breaks fall appropriately***
  - ***formatting is consistent, the use of headings and subheadings aid clarity***
  - ***the placing of images or sound clips***

Quality problems with outcomes:

- ***Will vary according to the content, for example:***
  - ***text (eg formatting, structure)***
  - ***images (eg size, position, orientation)***
  - ***numbers (eg decimal points, accuracy of calculations)***
  - ***sound (eg volume, sound clip out of sync)***

Presentation methods:

- ***Methods will vary according to the software and task, for example:***
  - ***on screen display, publishing on a web site, hard copy print out, digital file***
- ***Organisational house style, branding***

Unit 317 Computerised accounting software

Level: ***3***
Credit value: ***5***

Unit aims
This is the ability to select and use a computerised accounting or bookkeeping software application to input and process data for orders and invoices, receipts and payments and prepare management and period end reports.

On completion of this unit a candidate should be able to select and use a range of advanced accounting software tools and techniques for complex or non-routine information.

Accounting software tools and techniques will be defined as 'advanced' because:

- ***the software tools and functions used will be complex, and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, manipulating and outputting the information and support the work of others***

Examples of context: Editing a report template to create a bespoke report. Creating a new report template for use by others; linking accounts to computerised payroll system

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Access, enter and edit accounting information***
2. ***Process business transactions from source documents***
3. ***Develop and interpret management information reports***
4. ***Set up a computerised accounting system ready for use***

Guided learning hours
It is recommended that 35 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***

- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 317 Computerised accounting software
Learning outcomes and assessment criteria

Outcome 1 Access, enter and edit accounting information

The learner can:

1. ***Set up procedures for entry of accounting data accurately into records to meet requirements***
2. ***Explain how to code new entries***
3. ***Locate and display accounting data records to meet requirements***
4. ***Check data records meet needs using IT tools, making corrections as necessary***
5. ***Explain the risks to data security and procedures used for data protection***
6. ***Handle data files effectively, in line with local or legal guidelines and conventions for the storage and use of data where available***
7. ***Interpret and respond appropriately to a range of data and application error messages***

Outcome 2 Process business transactions from source documents

The learner can:

1. ***Select and use appropriate tools and techniques to process transactions***
2. ***Use software tools to monitor accounts***
3. ***Respond appropriately to any transaction errors and problems***
4. ***Process period and year end routines***

Outcome 3 Develop and interpret management information reports

The learner can:

1. ***Explain what information is required and how to present it***
2. ***Generate and interpret management reports as required***
3. ***Customise and format accounting documents and reports according to requirements***
4. ***Import and export data and link to other systems***

Outcome 4 Set up a computerised accounting system ready for use

The learner can:

1. ***Install and update accounting software as required***
2. ***Configure accounting software for use***
3. ***Set up package parameters***
4. ***Set up initial account balances***

Teaching 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.

Outcome 1 Access, enter and edit accounting information

The learner should be able to and understand:

Enter accounting data:
- ***Use of data entry form and wizards***
- ***Add/amend record (customer record, supplier record, stock record; sales/purchase order; invoice, nominal/bank record)***
- ***Upload from file; journal entries; asset register***

Locate and display:
- ***Search, sort, print records, filters***

Check data:
- ***Spell check, format, consistency***
- ***Remove duplication***
- ***Verify data; edit details***
- ***Check calculations, check coding***
- ***Manage others' work***

Characteristics of accounting data:
- ***Unique references***
- ***Codes***
- ***Statutory requirements***
- ***Editing restrictions***

Security risks and procedures:
- ***Access control***
- ***Authorised use, confidentiality, personal data***
- ***Password protection and management, user authentication***

Handle data files:
- ***File storage, data import and export, restore lost data***
- ***Identify ineffective backup storage***

Guidelines for the storage and use of data:
- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application.***

Data entry errors:
- ***Due to field size, data type***
- ***Validation checks***
- ***Duplicate records, format, using help***
- ***Error codes***

- ***Troubleshooting; logging, reporting and dealing with application errors***

Outcome 2 Process business transactions from source documents

The learner should be able to and understand:

Process transactions:
- ***Number of items: single items, batches***
- ***Transaction templates***
- ***Types of transactions:***
  - ***post invoice, receipts, payments, journal entries***
  - ***number of items: single items, batches***
  - ***from: bank statement, cheque book, paying-in book***
- ***Create, copy, check, save***

Monitor accounts:
- ***Set flags, set credit limit or other constraints***

Transaction errors and problems:
- ***Record duplication, reversing transactions***
- ***Reported errors and problems***

Outcome 3 Develop and interpret management information reports

The learner should be able to and understand:

Accounting documents:
- ***Will vary according to task, but may include for example:***
  - ***invoice, sales order, purchase order, statement***
- ***To screen, printed, for e-mail***

Management reports:
- ***Create, amend and save report templates***
- ***Will vary according to task, but may include for example:***
  - ***audit trail, trial balance, profit and loss; balance sheet, VAT or intrastate reporting***
  - ***customer activity; day book, aged creditor/debtor analysis***

Customise and format:
- ***Field selection; layout***
- ***Working with templates, filters, formatting, sorting, calculated fields***

Export and link data:
- ***Other file formats (eg csv, xls), for export and link to other systems and software***

Outcome 4 Set up a computerised accounting system ready for use

The learner should be able to and understand:

Configure accounting software:

- ***System defaults (VAT codes, year end etc)***
- ***Create code system***
- ***Nominal ledger structure***
- ***Project costing***
- ***Online banking***

Package parameters:

- ***VAT and currency rates***
- ***Reporting levels***
- ***Access/password control***
- ***Discount levels, exchange rates***

Unit 318 Data management software

Level: *3*
Credit value: *4*

Unit aim
This is the ability to use a software application designed to store and retrieve data needed for a variety of business functions. It also includes an understanding of the features and facilities of the software and the purpose for which the data is stored.

An advanced user can select and use advanced data management software tools and techniques efficiently to:

- ***enter complex information;***
- ***retrieve information using complex selection criteria;***
- ***produce customised reports from the system; and***
- ***set up menus or short cuts.***

The data management system tools, functions and techniques will be described as 'advanced' because the:

- ***software tools and functions involved will be complex and at times involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying; and***
- ***input, manipulation and output techniques involved will be complex, which will involve research, identification and application.***

Examples of context: Working with the software manufacturer or IT professional to develop and implement new data handling techniques; Examples of customisation includes: additional product training; creation of process triggers and workflow; assistance writing reports; complex data extracts; or implementing Business Intelligence.

Learning outcomes
There are two learning outcomes to this unit.
The learner will:

1. ***Enter, edit and maintain data records in a data management system***
2. ***Retrieve and display data records to meet requirements***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment

This unit will be assessed as specified in thee-Skills IT User Assessment Strategy 2009.

Unit 318 Data management software
Learning outcomes and assessment criteria

Outcome 1 Enter, edit and maintain data records in a data management system

The learner can:

1. ***Discuss when and how to change or create a new data entry form***
2. ***Enter data accurately into records to meet requirements***
3. ***Configure characteristics of groups of records***
4. ***Discuss and explain how to locate and amend data records***
5. ***Check data records meet needs, using IT tools and making corrections as necessary***
6. ***Interpret and respond appropriately to a range of data and application error messages***
7. ***Evaluate and explain the risks to data security and procedures used for data protection***
8. ***Manage data files effectively, in line with local and/or legal guidelines for the storage and use of data where available***

Outcome 2 Retrieve and display data records to meet requirements

The learner can:

1. ***Determine and explain what queries and reports need to be run to output the required information***
2. ***Create and use queries to search for and retrieve information from the system***
3. ***Create, define and set up reports to output information to meet requirements***
4. ***Use the file handling techniques of the software to import and export data***
5. ***Use available techniques to combine and link data***

Teaching 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.

Outcome 1 Enter, edit and maintain data records in a data management system

The learner should be able to understand:

Benefits of data management system:

- ***Accessible, reliable, rapid access***
- ***Shared view, up-to-date, accurate, secure***
- ***Simplifies data handling***
- ***Constraints of using system, audit trail***

Enter data:

- ***Use of data entry form, create new record, add record to table***
- ***Select and update fields, groups of records***

Record characteristics:

- ***Attributes, categories, teams, flags, keys***

Check data:

- ***Spell check, format, consistency, remove duplication***
- ***Verify data; data validation techniques***
- ***Record housekeeping***

Error messages:

- ***Data entry: due to field size, data type, validation checks, duplicate records, format***
- ***Using help***
- ***Troubleshooting; logging, reporting and dealing with application errors***
- ***System access***

Security risks and procedures:

- ***Access control***
- ***Authorised use, password protection and management, user authentication***
- ***Manage data files:***
- ***File storage, data import and export, restore lost data***
- ***Identify ineffective backup storage***

Guidelines for the storage and use of data:

- ***Set by employer or organisation or centre***
- ***Policies relating to security, backup and data protection***
- ***Guidelines for data format***
- ***Compliance, audit and reporting requirements***
- ***File management will vary according to the application.***

Outcome 2 Retrieve and display data records to meet requirements
The learner should be able to and understand:

Reports:
- ***Customised reports***
- ***Define report parameters: for self and others***
- ***System reports***
- ***Errors in reports***

Search and retrieve:
- ***Alphanumeric sort, filter, multiple criteria, cross-tabulate data***
- ***Queries to update and amend data***
- ***Logical operators***

Import and export data:
- ***To other systems or software***
- ***File formats***
- ***Mail merge***
- ***Data migration***
- ***Data archiving***

Unit 319 Database software

Level: *3*
Credit value: *6*

Unit aim
This is the ability to use a software application designed to organise and store structured information and generate reports.

On completion of this unit a candidate should be able to select and use advanced database software tools and techniques efficiently to:

- ***enter complex information into databases;***
- ***retrieve information by creating queries using multiple selection criteria; and***
- ***produce reports by setting up menus or short cuts.***

They will also be able to design, create and interrogate multiple-table relational databases. Database tools, functions and techniques will be described as 'advanced' because the:

- ***software tools and functions involved will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying; and***
- ***input, manipulation and output techniques involved will be complex, which will involve research, identification and application.***

Examples of context: Typical 'more complex' reports from multiple-table relational databases may be about – customers' buying methods, order frequency and payment patterns.

Learning outcomes
There are three learning outcomes to this unit.
The learner will:

1. ***Plan, create and modify relational database tables to meet requirements***
2. ***Enter, edit and organise structured information in a database***
3. ***Use database software tools to create, edit and run data queries and produce reports***

Guided learning hours
It is recommended that 45 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment

This unit will be assessed as specified in thee-Skills IT User Assessment Strategy 2009.

Unit 319 Database software
Learning outcomes and assessment criteria

Outcome 1 Plan, create and modify relational database tables to meet requirements

The learner can:

1. ***Explain how a relational database design enables data to be organised and queried***
2. ***Plan and create multiple tables for data entry with appropriate fields and properties***
3. ***Set up and modify relationships between database tables***
4. ***Explain why and how to maintain data integrity***
5. ***Respond appropriately to problems with database tables***
6. ***Use database tools and techniques to ensure data integrity is maintained***

Outcome 2 Enter, edit and organise structured information in a database

The learner can:

1. ***Design and create forms to access, enter, edit and organise data in a database***
2. ***Select and use appropriate tools and techniques to format data entry forms***
3. ***Check data entry meets needs, using IT tools and making corrections as necessary***
4. ***Respond appropriately to data entry errors***

Outcome 3 Use database software tools to create, edit and run data queries and produce reports

The learner can:

1. ***Explain how to select, generate and output information from queries according to requirements***
2. ***Create and run database queries to display, amend or calculate selected data***
3. ***Plan and produce database reports from a multiple-table relational database***
4. ***Select and use appropriate tools and techniques to format database reports***
5. ***Check reports meet needs, using IT tools and making corrections as necessary***

Teaching 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.

Outcome 1 Plan, create and modify relational database tables to meet requirements

The learner should be able to and understand:

Database design:

- ***What types of information are stored***
- ***Use of data entry form***
- ***Routine queries***
- ***How data is structured in a single table non-relational database***
- ***Use of indexes and key field to organise data***
- ***How relationships are established in a multiple-table database***
- ***How data is structured in a multiple-table database***
- ***What logical operators are and how to use them***
- ***Schema***

Field characteristics:

- ***Data type, field name, field size, field format, validation***
- ***Primary and secondary keys***
- ***Lookup tables***

Relationships between database tables:

- ***One to one, one to many, many to many***

Data integrity:

- ***Unique not null primary key***
- ***Field characteristics***
- ***Data validation, consistency, completeness, accuracy***
- ***Effect of malicious or accidental alteration***
- ***Methods for maintaining integrity of data in a multiple table database***
- ***Referential integrity, foreign keys***

Problems with database tables:

- ***Redundant data, duplication, table structure, field characteristics and validation***
- ***Sources of help***
- ***Access control***
- ***Data type, indexing***
- ***Analytical tools***

Outcome 2 Enter, edit and organise structured information in a database
The learner should be able to and understand:

Enter, edit and organise data:
- ***Select and update fields***
- ***Create new records***
- ***Locate and amend records: using wildcards, search operators***

Format data entry forms:
- ***Field characteristics and layout, tables, colour, lookups, styles , subforms***

Check data entry:
- ***Spell check, format***
- ***Accuracy, consistency, completeness, validity***
- ***Security***
- ***Fitness for purpose***

Data entry errors:
- ***Due to field size, data type, validation checks***
- ***Using help: deal with data that does not fit parameters, alerts, reminders; problems with forms***

Outcome 3 Use database software tools to create, edit and run data queries and produce reports
The learner should be able to and understand:

Database queries:
- ***Alphanumeric sort, filter, single criteria, multiple criteria***
- ***Save queries and output, cross-tabulate data***
- ***Queries to update and amend data***
- ***Logical operators***

Database reports:
- ***Using menus, wizards or shortcuts***
- ***Selected fields, selected records***

Formatting database reports:
- ***Data fields***
- ***Page and section layout***
- ***Add text or images***
- ***Adjust page setup for printing, styles***

Check data entry:
- ***Completeness, accuracy***
- ***Sorting, formatting, layout,***
- ***Security, fitness for purpose***

Unit 320 Design software

Level: ***3***
Credit value: ***5***

Unit aims
This is the ability to use a software application designed to create, modify and layout artwork for display in print or on a screen (eg vector graphics for design and drawing; raster graphics for photo manipulation or illustration).

On completion of this unit a candidate should be able to select and use a wide range of advanced design software tools and techniques to complex and non-routine designs.

Design software tools and techniques will be defined as 'advanced' because:

- ***the software tools and functions used will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be multi-step and complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, structuring, editing and presenting the information.***

Examples of context: logo for a company or touching up and removing unwanted elements from a photograph.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Obtain, insert and combine information for designs***
2. ***Use design software tools to create, manipulate and edit designs***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 320 Design software
Learning outcomes and assessment criteria

Outcome 1 Obtain, insert and combine information for designs

The learner can:

1. ***Explain what designs are needed***
2. ***Explain how the context affects the way designs should be prepared***
3. ***Provide guidance on what and how any copyright or other constraints may apply to the use of own and others' designs***
4. ***Obtain, insert and prepare designs***
5. ***Explain how file format affects image quality, format and size and how to choose appropriate formats for saving designs***
6. ***Use appropriate techniques to organise and combine information of different types or from different sources***
7. ***Store and retrieve files effectively, in line with guidelines and conventions where available***

Outcome 2 Use design software tools to create, manipulate and edit designs

The learner can:

1. ***Explain what technical factors affecting designs need to be taken into account and how to do so***
2. ***Select and use suitable tools and techniques efficiently to create designs***
3. ***Use guide lines and dimensioning tools appropriately to enhance precision***
4. ***Select and use appropriate tools and techniques to manipulate and edit designs***
5. ***Check designs meet needs, using IT tools and making corrections as necessary***
6. ***Identify and respond appropriately to quality problems to ensure that outcomes are fit for purpose and meet needs***

Teaching 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.

Outcome 1 Obtain, insert and combine information for designs

The learner should be able to and understand:

Designs:

- ***Designs 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 (eg on use of other people's images)***

Acknowledgment of sources, avoiding plagiarism, permissions

Combine information:

- ***Insert, size, position, wrap, order, group, layer***
- ***Import data, export data***
- ***Links and references to external data***
- ***Version control***

Context for designs:

- ***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 designs:

- ***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 (eg raw bitmaps, bmp and compressed formats jpeg and png)***
    - ***Vector graphics (eg svg, wmf, eps, ai)***
    - ***Open formats (eg html, odf, PDF and rtf)***
    - ***Proprietary formats (eg pub and qxd)***
- ***Method of compression (lossy, non-lossy)***
- ***Converting files between different formats (eg JPEG to TIFF, compression of image data or Grayscale)***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find)***
- ***Folders (eg create, name)***

- ***Archive (backup, restore)***

Outcome 2 Use design software tools to create, manipulate and edit designs

The learner should be able to and understand:

Technical factors affecting designs:

- ***Page or canvas size***
- ***Colour mode***
- ***File size and format***
- ***Image resolution***
- ***Method of display or printing***
- ***Colour depth***
- ***Technical differences between vector and bitmap or raster graphics***

Create designs:

- ***Draw basic shapes and edit vector properties to create new and more complex shapes***
- ***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***
- ***Use layers for different elements (eg background, picture and text)***
- ***Use bleeds and crossovers***
- ***Three dimensional (3D) objects and designs***

Manipulate and editing techniques:

- ***Basic techniques:***
  - ***align, rotate, flip, arrange, cut, paste, resize, change font, text and colour, group, ungroup***
- ***Image manipulation software:***
  - ***transform, scale, rotate, distort filters, effects colour balance, levels and curves masks and layers***
- ***Illustration software:***
  - ***masks and layers***
  - ***rendering three dimensional (3D) objects***
  - ***tracing***
- ***Advanced techniques:***
  - ***change resolution, colour depth and file format to suit different uses, adjust images to ensure compatibility between different software and operating systems***

Check designs:

- ***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 designs:

- ***Will vary according to the content, for example:***
  - ***levels, contrast, resolution, colour balance, unwanted content***

Unit 321 Imaging software

Level: ***3***
Credit value: ***5***

Unit aims
This is the ability to use a software application designed to create, modify and layout images for display in print or on a screen (eg vector graphics for design and drawing; raster graphics for photo manipulation or illustration).

On completion of this unit a candidate should be able to select and use a wide range of advanced imaging software tools and techniques to complex and non-routine designs.

Imaging software tools and techniques will be defined as 'advanced' because:

- ***the software tools and functions used will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be multi-step and complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, structuring, editing and presenting the information.***

Examples of context: logo for a company or touching up and removing unwanted elements from a photograph.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. Obtain, insert and combine information for images
2. Use imaging software tools to create, manipulate and edit images

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 321 Imaging software
Learning outcomes and assessment criteria

Outcome 1 Obtain, insert and combine information for images

The learner can:

1. ***Explain what images are needed***
2. ***Explain how the context affects the way images should be prepared***
3. ***Provide guidance on what and how any copyright or other constraints may apply to the use of own and others' images***
4. ***Obtain, insert and prepare images***
5. ***Explain how file format affects image quality, format and size and how to choose appropriate formats for saving images***
6. ***Use appropriate techniques to organise and combine information of different types or from different sources***
7. ***Store and retrieve files effectively, in line with guidelines and conventions where available***

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

The learner can:

1. ***Explain what technical factors affecting images need to be taken into account and how to do so***
2. ***Select and use suitable tools and techniques efficiently to create images***
3. ***Use guide lines and dimensioning tools appropriately to enhance precision***
4. ***Select and use appropriate tools and techniques to manipulate and edit images***
5. ***Check images meet needs, using IT tools and making corrections as necessary***
6. ***Identify and respond appropriately to quality problems to ensure that outcomes are fit for purpose and meet needs***

Teaching 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.

Outcome 1 Obtain, insert and combine information for images

The learner should be able to and understand:

Images:

- ***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 (eg on use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Combine information:

- ***Insert, size, position, wrap, order, group, layer***
- ***Import data, export data***
- ***Links and references to external data***
- ***Version control***

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 (eg raw bitmaps, bmp and compressed formats jpeg and png)***
  - ***Vector graphics (eg svg, wmf, eps, ai)***
  - ***Open formats (eg html, odf, PDF and rtf)***
  - ***Proprietary formats (eg pub and qxd)***
- ***Method of compression (lossy, non-lossy)***
- ***Converting files between different formats (eg JPEG to TIFF, compression of image data or Grayscale)***

Store and retrieve:

- ***Files (eg create, name, open, save, save as, print, close, find); folders (eg create,***

name)

- *Archive (backup, restore)*

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***
- ***Image resolution***
- ***Method of display or printing***
- ***Colour depth***
- ***Technical differences between vector and bitmap or raster graphics***

Create images:

- ***Draw basic shapes and edit vector properties to create new and more complex shapes***
- ***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***
- ***Use layers for different elements (eg background, picture and text)***
- ***Use bleeds and crossovers***
- ***Three dimensional (3D) objects and designs***

Manipulate and editing techniques:

- ***Basic techniques:***
  - ***align, rotate, flip, arrange, cut, paste, resize, change font, text and colour, group, ungroup***
- ***Image manipulation software:***
  - ***transform, scale, rotate, distort filters, effects colour balance, levels and curves masks and layers***
- ***Illustration software:***
  - ***masks and layers***
  - ***rendering three dimensional (3D) objects***
  - ***tracing***
- ***Advanced techniques:***
  - ***change resolution, colour depth and file format to suit different uses***
  - ***adjust images to ensure compatibility between different software and operating systems***

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, colour balance, unwanted content***

Unit 322 Desktop publishing software

Level: ***3***
Credit value: ***5***

Unit aims
This is the ability to use desktop publishing software designed to combine and manipulate text, image and graphic elements in layouts appropriate for subsequent publication to screen or print.

On completion of this unit a candidate should be able to select and use a wide range of advanced desktop publishing software tools and techniques effectively to produce publications that are at times non-routine or unfamiliar.

Publication tools and techniques will be described as 'advanced' because:

- ***the software tools and functions used will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, structuring, editing and presenting the information.***

Examples of context: Typical documents may include – an interactive or multi-media publication for the web; multi-page magazine.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Select and use appropriate designs and page layouts for publications***
2. ***Input and combine text and other information within publications***
3. ***Use desktop publishing software techniques to edit and format publications***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***

- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 322 Desktop publishing software
Learning outcomes and assessment criteria

Outcome 1 Select and use appropriate designs and page layouts for publications

The learner can:

1. *Explain what types of information are needed*
2. *Explain when and how to change page design and layout to increase effectiveness of a publication*
3. *Select, change, define, create and use appropriate page design and layout for publications in line with local guidelines, where relevant*
4. *Select and use appropriate media for the publication*

Outcome 2 Input and combine text and other information within publications

The learner can:

1. *Find and input information into publications so that it is ready for editing and formatting*
2. *Organise and combine information for publications in line with any copyright constraints, including importing information produced using other software*
3. *Provide guidance on how copyright constraints affect use of own and others' information*
4. *Explain which file format to use for saving designs and images*
5. *Store and retrieve publication files effectively, in line with local guidelines and conventions where available*

Outcome 3 Use desktop publishing software techniques to edit and format publications

The learner can:

1. *Determine and discuss what styles, colours, font schemes, editing and formatting to use for the publication*
2. *Create styles, colours and font schemes to meet needs*
3. *Select and use appropriate techniques to edit publications and format text*
4. *Manipulate images and graphic elements accurately*
5. *Control text flow within single and multiple columns and pages*
6. *Check publications meet needs, using IT tools and making corrections as necessary*
7. *Identify and respond appropriately to quality problems with publications to ensure that outcomes are fit for purpose and meet needs*

Teaching 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.

Outcome 1 Select and use appropriate designs and page layouts for publications

The learner should be able to and understand:

Types of information:
- ***Text, images, graphics, video, sound***

Page design and layout:
- ***Organisation of information, size, white space, columns, consistency, orientation, proportion***
- ***Balance, symmetry***

Local guidelines:
- ***Templates, house style, branding, publication guidelines***
- ***Existing styles and schemes, refinements to styles and schemes***
- ***New specially defined styles and schemes***

Publication media:
- ***Web, document, multimedia***

Outcome 2 Input and combine text and other information within publications

The learner should be able to and understand:

Input information:
- ***Using keyboard, mouse, scanner, voice recognition, touch screen, stylus***

Combine information for publications:
- ***Combine images with text and graphic elements (eg borders, lines, panels, shading, logos)***
- ***Import information produced using other software***
- ***Reference external information with hyperlinks, object linking or embedding***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

File formats for designs and 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 (eg raw bitmaps, bmp and compressed formats***

jpeg and png)

- *Vector graphics (eg svg, wmf, eps, ai)*

Store and retrieve:

- *Files (eg create, name, open, save, save as, print, close, find, share); file size, file properties*
- *Version control*
- *Import/export*
- *Folders (eg create, name)*
- *Archive (backup, restore)*

Outcome 3 Use desktop publishing software techniques to edit and format publications

The learner should be able to and understand:

Edit publications:

- *Drag and drop, find, replace, undo redo, size, crop and position*
- *Use layout guides*

Format text:

- *Existing styles and schemes for font (typeface), size, orientation, colour, alignment*

Manipulate images and graphic elements:

- *Size, crop, position, maintain proportion, border*

Control text flow:

- *In columns, around images and graphic elements, between pages*

Check publications:

- *Spell check, grammar check, word count*
- *Image size, alignment and orientation, suitability of file format*
- *Completeness, accuracy, orientation, layout, text alignment and formatting*

Quality problems with publications:

- *Will vary according to the content, for example*
  - *text (eg text wrapping, styles), images (eg levels, contrast, resolution, colour balance, unwanted content)*

Unit 323 Drawing and planning software

Level: ***3***
Credit value: ***4***

Unit aims
This is the ability to use software designed for producing 2D drawings or plans, such as flowcharts, mindmaps and technical drawings.

On completion of this unit a candidate should be able to select and use advanced tools and techniques to produce complex and non-routine drawings and plans.

2D drawing and planning software tools and techniques will be described as 'advanced' because:

- ***the software tools and functions used will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, structuring, editing and presenting the information.***

Examples of context: A plan of the proposed new traffic layout for a town centre, a flow chart of the quality control checks to be carried out on a production line; a plan of the data relationships for a multi-table database or a system diagram for a complex IT network.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will be able to:

1. ***Input, organise and combine information for drawings or plans***
2. ***Use tools and techniques to edit, manipulate, format and present drawings or plans***

Guided learning hours
It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***

- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 323 Drawing and planning software
Learning outcomes and assessment criteria

Outcome 1 Input, organise and combine information for drawings or plans

The learner can:

1. ***Identify what types of shapes and other elements will be needed***
2. ***Evaluate templates and explain why and how they need to be changed to meet needs***
3. ***Select, adapt, create and use the appropriate shapes to meet needs, including shapes imported from other sources***
4. ***Select, adapt, define and create appropriate templates and styles to meet needs***
5. ***Provide guidance on what copyright constraints apply to the use of own and others' shapes or other elements***
6. ***Combine information for drawings or plans including exporting outcomes to other software***
7. ***Store and retrieve drawing files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use tools and techniques to edit, manipulate, format and present drawings or plans

The learner can:

1. ***Explain what drafting guides to use so that the shapes and other elements are appropriately prepared***
2. ***Select and use appropriate software tools to manipulate and edit shapes and other elements with precision***
3. ***Select and use appropriate software tools to format shapes and other elements, including applying styles and colour schemes***
4. ***Check drawings or plans meet needs, using IT tools and making corrections as necessary***
5. ***Identify and respond to quality problems with drawings or plans to make sure they are fit for purpose and meet needs***
6. ***Explain what context the drawings and plans will be used in and how this will effect how they are presented***
7. ***Select and use appropriate presentation methods and accepted page layouts***

Teaching 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.

Outcome 1 Input, organise and combine information for drawings or plans

The learner should be able to and understand:

Shapes and other elements:

- ***Shapes will vary according to the required outcome, for example:***
  - ***flow chart shapes, building plan shapes, audit***

Other elements:

- ***Graphic elements (eg lines, arrows, borders, backgrounds, clip art), text, numbers***

Input information:

- ***Inputting tools and techniques will vary according to the technology being used, for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***

Templates and styles:

- ***Existing templates and styles, working from an example document***
- ***Adapt templates, create new templates***
- ***Apply styles.***
- ***Define new styles and colour schemes***

Copyright constraints:

- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Combine information:

- ***Insert, size, position, wrap, order, group***

Store and retrieve:

- ***Save, save as, find, open, close, import, export, other file formats***

Outcome 2 Use tools and techniques to edit, manipulate, format and present drawings or plans

The learner should be able to and understand:

Drafting guides:

- ***Grids, snap to grid, snap to shape, rulers, guidelines***

Manipulate and edit shapes and other elements:

- ***Will vary, for example:***
  - ***Edit: select, insert, delete, cut, copy, paste, drag and drop, find, replace***
  - ***Text: font, colour, alignment***
  - ***Shapes: size, colour, orientation, connections to other shapes and elements, add labels***

Format shapes and other elements:

- ***Will vary, for example:***
  - ***text (eg font, paragraphs, text block, tabs, bullets)***
  - ***lines (eg width, length, colour, endings, beginnings)***
  - ***drawing elements (eg fill, shadow, corners)***
  - ***connections between shapes and other elements***

Protection:

- ***length, width, axis***
- ***Behaviour: interaction, selection highlighting***

Check drawings and plans:

- ***Spell check, grammar check, accuracy of numbers, labelling and size of shapes, connections between shapes and other elements***

Presentation methods:

- ***Will vary according to the task, for example, on screen display, publishing on a web site, hard copy print out, digital file; organisational house style, branding***

Quality problems with drawings and plans:

- ***Will vary according to the content, for example:***
  - ***text (eg formatting, styles, positioning), shapes (eg size, position, orientation, unwanted content), other elements (eg scale, thickness, colour, connections), page layout, proportion, balance, symmetry***

Unit 324 Multimedia software

Level: ***3***
Credit value: ***6***

Unit aims

This is the ability to use multimedia software designed to combine, manipulate and animate a variety of objects and data types in layouts appropriate for subsequent production to screen. In general, multimedia includes a combination of text, audio, still images, animation, video, and interactive content.

On completion of this unit a candidate should be able to select and use a wide range of advanced multimedia tools and techniques effectively to produce publications that are at times non-routine or unfamiliar.

Publication tools and techniques will be described as 'advanced' because:

- ***the software tools and functions used will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, structuring, editing and presenting the information.***

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Plan the content and organisation of multimedia products to meet needs***
2. ***Obtain, input and combine content to build multimedia outcomes***
3. ***Use tools and techniques to build and edit multimedia content***
4. ***Play and present multimedia outcomes***

Guided learning hours

It is recommended that 45 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

This unit will be assessed by:

- ***an assignment***
- ***portfolio of evidence – classroom or work based***
- ***professional discussion***

- ***expert witness***
- ***scenario***

Unit 324 Multimedia software
Learning outcomes and assessment criteria

Outcome 1 Plan the content and organisation of multimedia products to meet needs

The learner can:

1. ***Select and use appropriate techniques to plan and communicate the content, design and layout of multimedia outcomes***
2. ***Plan the use of interactive features, transitions and effects to meet needs***
3. ***Explain the type of multimedia outcome needed and the specification that it must meet***
4. ***Develop the design layout for multimedia outcomes***
5. ***Explain how the different elements of the content will relate and what elements of the content will be interactive***
6. ***Summarise how copyright and other constraints affect use of own and others' information***

Outcome 2 Obtain, input and combine content to build multimedia outcomes

The learner can:

1. ***Select and use an appropriate combination of input device, software and input techniques to obtain and input the relevant content***
2. ***Combine information of different types or from different sources for multimedia outcomes***
3. ***Select and use appropriate software to write and compress multimedia files***
4. ***Store and retrieve multimedia files effectively, in line with local guidelines and conventions where available***
5. ***Explain when and why to use different file formats and file compression for saving multimedia files***

Outcome 3 Use tools and techniques to build and edit multimedia content

The learner can:

1. ***Select and use appropriate techniques to edit and format multimedia outcomes***
2. ***Manipulate images and graphic elements accurately***
3. ***Check multimedia outcomes meet needs, using IT tools and making corrections as necessary***
4. ***Identify and respond appropriately to quality problems to ensure that outcomes are fit for purpose and meet needs***

Outcome 4 Play and present multimedia outcomes

The learner can:

1. ***Explain what combination of display device and software to use that will overcome any constraints there may be in displaying different multimedia file formats***
2. ***Select and use appropriate software to optimise the display of multimedia outcomes and maximise impact***
3. ***Select and adjust the display settings to exploit the features of the display device and optimise the quality of the presentation***

Teaching 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.

Outcome 1 Plan the content and organisation of multimedia products to meet needs

The learner should be able to and understand:

Plan and communicate:
- ***Flow chart, storyboard, sketches***

Multimedia outcome:
- ***Website, CD ROM, animation sequence, presentation***

Specification:
- ***No of pages, features, audience, types of content, interactive elements***

Interactive features and transitions:
- ***Menus, submenus, buttons, links***
- ***Pop-ups: video clips, sound clips***
- ***Animation***

Design layout:
- ***Organisation of information, size, frames, orientation, consistency, proportion, balance, symmetry***

Copyright constraints:
- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, permissions***

Outcome 2 Obtain, input and combine content to build multimedia outcomes

The learner should be able to and understand:

Input device:
- ***Inputting tools and techniques will vary according to the technology being used: for example:***
  - ***interface devices (eg keyboard, mouse, stylus, touch screen)***
  - ***microphone (eg headset, built-in)***
  - ***camera (eg web cam, video camera, mobile phone camera)***

Combine information:
- ***Insert, size, position, wrap, order, group***
- ***Import data, export data***
- ***Links and references to external data***
- ***Version control***

File format for multimedia outcomes:
- ***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)***

Store and retrieve:

- *Save, save as, find, open, close*
- *Reduce file size, file properties*
- *Import and export*

Outcome 3 Use tools and techniques to build and edit multimedia content

The learner should be able to and understand:

Edit multimedia outcomes:

- *Size, crop and position*
- *Use layout guides*
- *Existing styles and schemes for font (typeface), size, orientation, colour, alignment*

Manipulate images and graphic elements:

- *Size, crop, position, maintain proportion, border*

Styles, colours and font schemes:

- *Existing styles and schemes*

Check multimedia outcomes:

- *Completeness, accuracy, layout, formatting, animation, sound, sequence*
- *Review against requirements*

Quality problems:

- *Will vary according to the content, for example:*
  - *sound (eg noise, volume)*
  - *images (eg levels, contrast, unwanted content)*
  - *text (eg clarity, spelling, grammar, structure)*

Outcome 4 Play and present multimedia outcomes

The learner should be able to and understand:

Display devices:

- *PC, laptop, mobile device, TV*

Display multimedia outcomes:

- *Thumbnail, quarter screen, full screen, screen resolution*
- *Data bandwidth, transmission speeds*
- *Output media*
- *Constraints (eg speed of delivery, size of files, end user hardware and software configuration)*

Display settings:

- *Visual: brightness, contrast, screen resolution, colour balance, monochrome*
- *Sound: volume, treble, bass, balance*
- *Animation: speed*

Unit 325 Presentation software

Level: ***3***
Credit value: ***6***

Unit aim
This is the ability to use software applications to produce effective presentations, which include a combination of media (eg images, animation and sound) for education, entertainment or information sharing.

On completion of this unit a candidate should be able to select and use a wide range of advanced presentation software tools and techniques effectively to produce presentations that are complex or non-routine.

Presentation tools and techniques will be described as 'advanced' because the:

- ***software tools and functions used will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***inputting, manipulating and outputting techniques will be complex, and will involve research, identification and application; and***
- ***user will take full responsibility for inputting, structuring, editing and presenting the information.***

Examples of context: An interactive or multi-media presentation.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Input and combine text and other information within presentation slides***
2. ***Use presentation software tools to structure, edit and format presentations***
3. ***Prepare interactive slideshow for presentation***

Guided learning hours
It is recommended that 45 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 325 Presentation software
Learning outcomes and assessment criteria

Outcome 1 Input and combine text and other information within presentation slides

The learner can:

1. ***Explain what types of information are required for the presentation***
2. ***Enter text and other information using layouts appropriate to type of information***
3. ***Insert charts and tables and link to source data***
4. ***Insert images, video or sound to enhance the presentation***
5. ***Identify any constraints which may affect the presentation***
6. ***Organise and combine information for presentations in line with any constraints***
7. ***Store and retrieve presentation files effectively, in line with local guidelines and conventions where available***

Outcome 2 Use presentation software tools to structure, edit and format presentations

The learner can:

1. ***Explain when and how to use and change slide structure and themes to enhance presentations***
2. ***Create, amend and use appropriate templates and themes for slides***
3. ***Explain how interactive and presentation effects can be used to aid meaning or impact***
4. ***Select and use appropriate techniques to edit and format presentations to meet needs***
5. ***Create and use interactive elements to enhance presentations***
6. ***Select and use animation and transition techniques appropriately to enhance presentations***

Outcome 3 Prepare interactive slideshow for presentation

The learner can:

1. ***Explain how to present slides to communicate effectively for different contexts***
2. ***Prepare interactive slideshow and associated products for presentation***
3. ***Check presentation meets needs, using IT tools and making corrections as necessary***
4. ***Evaluate presentations, identify any quality problems and discuss how to respond to them***
5 ***Respond appropriately to quality problems to ensure that presentations meet needs and are fit for purpose***

Teaching 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.

Outcome 1 Input and combine text and other information within presentation slides

The learner should be able to and understand:

Types of information:

- ***Text, numbers, images, graphics, sound, video, animated sequences***

Images, video or sound for presentations:

- ***Clip-art, photo, scanned images, borders, create diagrams or graphics***
- ***Image formats: pre-recorded audio/video clips, capturing audio or video, audio and video formats***

Charts and tables for presentations:

- ***Table, pie chart, graph, diagram, organisational chart, flowchart; linked and embedded spreadsheet elements***

Combine information for presentations:

- ***Combine images, charts, tables with text by inserting, re-sizing and positioning***
- ***Use of text boxes, presentation with audio and/or video, import information produced using other software***
- ***Reference external information with hyperlinks, object linking or embedding***
- ***Merge versions or slides from different files or users***

Constraints:

- ***On content: copyright law (eg on music downloads or use of other people's images), acknowledgment of sources, avoiding plagiarism***
- ***Equal opportunities, other local guidelines***
- ***On delivery (eg environment, timing)***

Store and retrieve:

- ***Save, save as, find, open, close; naming protocols***
- ***Reducing file size; save presentation as a stand alone show or as web pages, formats for export***
- ***File properties, password protection***

Outcome 2 Use presentation software tools to structure, edit and format presentations

The learner should be able to and understand:

Slide structure:

- ***Layout, templates, design and style, organisational guidelines***
- ***Adapt and create new templates***

Presentation effects:

- ***Video, sound, animation, slide transitions, visual and sound effects, hyperlinks***
- ***Interactive elements***

Edit presentation:

- *Size, crop and position objects*
- *Wrap text; add captions and graphic elements*
- *Slide order; change orientation*
- *Animation and transition effects:*
- *Adding and removing hyperlinks*
- *Apply and create transitions, apply animations, action buttons*

Format slides:

- *Bullets, numbering, line spacing, alignment, colour, fonts, size, backgrounds, colour schemes, master slides, themes*

Outcome 3 Prepare interactive slideshow for presentation

The learner should be able to and understand:

Present slides:

- *Timing, content, meaning*
- *Organisation of information*
- *Audience needs*
- *Location, contexts*

Prepare slides:

- *View and re-order slides*
- *Rehearse timing and effects*
- *Set up and amend slide show settings*
- *Print slides, handouts, speaker notes*
- *Export formats*

Check presentations:

- *Spell check; grammar check, word count, orientation, layout, slide order, text alignment and formatting, accuracy, clarity, transitions and timings*
- *Choice and suitability of effects, actions and links*

Quality problems with presentations:

- *Will vary according to the content, for example:*
  - *Text: formatting, styles, structure*
  - *Images: size, position, orientation, unwanted content*
  - *Effects: timing, brightness, contrast, sound levels, wrong order of animations, action buttons that do not work, sound clip out of sync*

Unit 326 Project management software

Level: ***3***
Credit value: ***5***

Unit aims
This is the ability to use a software application that plans, organises and monitors completion of the component tasks within a project in logical sequence, given constraints of people and resource availability. This is not about managing a project although these standards may also be applicable to the project manager.

On completion of this unit a candidate should be able to select and use a wide range of advanced project management software tools and techniques to input and modify complex information to support the planning and management of multiple projects.

Project management tools and techniques will be described as 'advanced' because:

- ***the software tools and functions used will be complex and at times require the user to search for and apply a solution or alternative approach by exploring technical support, or self-teaching;***
- ***approaches to the inputting, manipulating and outputting of information will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for inputting, structuring, editing and managing the information within the software package.***

Examples of context: Preparing a project budget; working with team members

Learning outcomes
There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Create and define a project***
2. ***Enter and edit information about project tasks and resources***
3. ***Update information about project progress***
4. ***Select and use appropriate tools and techniques to display and report on project status***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- ***an assignment***

- ***portfolio of evidence – classroom or work based***
- ***professional discussion***
- ***expert witness***
- ***scenario***

Unit 326 Project management software
Learning outcomes and assessment criteria

Outcome 1 Create and define a project

The learner can:

1. ***Explain the critical information about the project that must be included***
2. ***Create, store and retrieve project management files in line with local guidelines where applicable***
3. ***Define the project file properties and project options***
4. ***Create master and sub-projects***
5. ***Create links across projects and manage changes to linked tasks***

Outcome 2 Enter and edit information about project tasks and resources

The learner can:

1. ***Identify the critical tasks and milestones to be completed***
2. ***Explain how to set up any deadlines and constraints which apply to the project***
3. ***Enter and edit information about project tasks***
4. ***Explain how to resolve issues of resource availability and utilisation***
5. ***Enter and edit information about resources to be used in the project***
6. ***Create and apply a task calendar for scheduling tasks***
7. ***Identify and resolve any issues of resource allocation***
8. ***Define and set up dependencies between tasks***

Outcome 3 Update information about project progress

The learner can:

1. ***Explain the methods available to track project progress and review against plans***
2. ***Use editing and formatting techniques to update project elements***
3. ***Update task status in line with progress***
4. ***Update information about resources as required***
5. ***Compare actual progress with project baseline and reschedule uncompleted tasks***
6. ***Identify and assess the impact of risks and issues on the project***
7. ***Manage information on project risks and issues***

Outcome 4 Select and use appropriate tools and techniques to display and report on project status

1. ***Create and customise project reports to meet needs***
2. ***Use filtering and formatting techniques to display project information to meet needs***
3. ***Share project information with other applications***

Teaching 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.

Outcome 1 Create and define a project

The learner should be able to and understand:

Project information:

- ***Tasks, timescales, resources, stages, constraints***
- ***Source of information: provided by the person responsible for the project***

Store and retrieve:

- ***Save, save as, find, open, close***
- ***Import project information***

Outcome 2 Enter and edit information about project tasks and resources

The learner should be able to and understand:

Task types:

- ***Fixed cost, fixed duration, fixed work, critical, recurring***

Task information:

- ***Duration, status, set reminders, priority, assign resources, constraints, deadlines, outlines, recurrence, custom fields***

Task calendar:

- ***Working-time calendar, holidays, customise, charts (eg Gantt chart)***

Resources:

- ***People, time, costs, equipment***
- ***Enterprise resources, shared resources***

Outcome 3 Update information about project progress

The learner should be able to and understand:

Task status:

- ***Complete, in progress, not started, percentage, tasks behind schedule, postpone task***

Risks and issues:

- ***Contingency plans, mitigation, associate with tasks or resources, alerts***

Outcome 4 Select and use appropriate tools and techniques to display and report on project status

The learner should be able to and understand:

Project reports:

- ***Task progress, project progress, resource allocation and usage, costs***

Display project information:

- ***Task lists, resource assignment, project costs, critical path***

Unit 327 Spreadsheet software

Level: ***3***
Credit value: ***6***

Unit aim
This is the ability to use a software application designed to record data in rows and columns, perform calculations with numerical data and present information using charts and graphs.

On completion of this unit a candidate should be able to select and use a wide range of advanced spreadsheet software tools and techniques to produce, present and check complex and non- routine spreadsheets.

Spreadsheet software tools and techniques will be defined as 'advanced' because the:

- ***range of data entry, manipulation and outputting techniques will be complex and non- routine;***
- ***tools, formulas and functions needed to analyse and interpret the required information require complex and non-routine knowledge and understanding (for example, data restrictions, data validation using formula, pivot tables, data maps); and***
- ***user will take full responsibility for setting up and developing the functionality of the spreadsheet.***

Examples of context: Typical examples may include - cost benefit analysis, analysis of results from a questionnaire or survey, developing summary reports from a large data set, creating a personalised customer quotation from a standard price list.

Learning outcomes
There are three learning outcomes to this unit.

The learner will:

1. ***Use a spreadsheet to enter, edit and organise numerical and other data***
2. ***Select and use appropriate formulas and data analysis tools and techniques to meet requirements***
3. ***Use tools and techniques to present, and format and publish spreadsheet information***

Guided learning hours
It is recommended that 45 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment

This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 327 Spreadsheet software
Learning outcomes and assessment criteria

Outcome 1 Use a spreadsheet to enter, edit and organise numerical and other data

The learner can:

1. ***Identify what numerical and other information is needed in the spreadsheet and how it should be structured***
2. ***Enter and edit numerical and other data accurately***
3. ***Combine and link data from different sources***
4. ***Store and retrieve spreadsheet files effectively, in line with local guidelines and conventions where available***

Outcome 2 Select and use appropriate formulas and data analysis tools and techniques to meet requirements

The learner can:

1. ***Explain what methods can be used to summarise, analyse and interpret spreadsheet data and when to use them***
2. ***Select and use a wide range of appropriate functions and formulas to meet calculation requirements***
3. ***Select and use a range of tools and techniques to analyse and interpret data to meet requirements***
4. ***Select and use forecasting tools and techniques***

Outcome 3 Use tools and techniques to present, and format and publish spreadsheet information

The learner can:

1. ***Explain how to present and format spreadsheet information effectively to meet needs***
2. ***Select and use appropriate tools and techniques to format spreadsheet cells, rows, columns and worksheets effectively***
3. ***Select and use appropriate tools and techniques to generate, develop and format charts and graphs***
4. ***Select and use appropriate page layout to present, print and publish spreadsheet information***
5. ***Explain how to find and sort out any errors in formulas***
6. ***Check spreadsheet information meets needs, using IT tools and making corrections as necessary***
7. ***Use auditing tools to identify and respond appropriately to any problems with spreadsheets***

Teaching 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.

Outcome 1 Use a spreadsheet to enter, edit and organise numerical and other data

The learner should be able to and understand:

Numerical and other data:

- ***Numbers, charts, graphs, text, images, linked and embedded objects, references, lists***

Spreadsheet structure:

- ***Spreadsheet components (eg cells, rows, columns, tabs, pages, charts, ranges, workbooks, worksheets), structure, design and layout***
- ***Spreadsheet templates***

Enter and edit:

- ***Insert data into single and multiple cells , clear cells, edit cell contents, replicate data, find and replace, add and delete rows and columns, use absolute and relative cell references, add data and text to a chart, hide and protect cells, create, modify and merge multiple copies of a shared workbook***
- ***Data validation***
- ***Shortcuts***
- ***Data entry forms, lists***

Combine and link data:

- ***Across worksheets and files***
- ***Consolidate data***
- ***Shared or collaborative workspaces***

Store and retrieve:

- ***Save, save as, find, open, close, open CSV file in spreadsheet application, save spreadsheet file as CSV; templates***
- ***Selective data import and export; file properties***
- ***Password protection***

Outcome 2 Select and use appropriate formulas and data analysis tools and techniques to meet requirements

The learner should be able to and understand:

Analysis and interpretation methods:

- ***Totals, sub-totals and summary data, automatic sub-totals, group and outline***
- ***Sorting and display order; lists, tables, graphs and charts***
- ***Filter rows and columns***
- ***Forms, data restrictions, data validation, adding messages to data, using formulae to determine valid entries for cells***
- ***Displaying by interest***
- ***Pivot tables and charts***
- ***Judgment of when and how to use these methods***
- ***Functions and formulas:***

Design of formulas to meet calculation requirements:

- *Mathematical, statistical, financial, logical, look-up, arguments, arrays and formulas for validating data*

Forecasting tools:

- *What-if scenarios, goal seek*
- *Data tables*
- *Views*

Outcome 3 Use tools and techniques to present, and format and publish spreadsheet information

The learner should be able to and understand:

Browser tools:

- *Enter, back, forward, refresh, history, bookmark, new window, new tab*

Format cells:

- *Numbers, currency, percentages, number of decimal places, font and alignment, borders and shading*
- *Date and time*
- *Custom formats*
- *Conditional formatting*
- *Styles, cell protection*
- *Workbook protection*
- *Format rows and columns:*
- *Height, width, borders and shading, hide, freeze*

Format charts and graphs:

- *Chart type (including custom types, 2 graphs types on 1 axis);*
  - *title, axis titles, legend, change chart type, move and resize chart, axis scale, annotation, layout, pivot table reports*

Page layout:

- *Size, portrait, landscape, margins, header and footer, page breaks, page numbering, date and time, adjust page set up for printing*
- *Selective printing or publishing of spreadsheet information*

Check spreadsheet information:

- *Accuracy of numbers, formulas and any text; suitability of charts and graphs; reveal formulae; layout and formatting, validity, relevance and accuracy of analysis, interpretation of calculations and results*
- *Clarity of overall spreadsheet*
- *Check links*

Problems with spreadsheets:

- *Using help; sorting out errors in formulas, calculations and results*
- *data validation, locate invalid data*

Unit 328 Website software

Level: *3*
Credit value: *5*

Unit aim
This is the ability to use a software application designed for planning, designing and building websites.

On completion of this unit a candidate should be able to select and use a range of advanced website software tools and techniques to develop multiple-page websites with multimedia and interactive features.

Website software tools and techniques will be defined as 'advanced' because the:

- ***the software tools and functions used will be complex and at times involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the development techniques will be complex, and will involve research, identification and application; and***
- ***the user will take full responsibility for planning and developing the structure, inputting, manipulating, adding multimedia or interactive features, uploading and publishing the information.***

Examples of context: Shopping website linked to product information and stock control database

Learning outcomes
There are three learning outcomes to this unit.
The learner will:

1. ***Create structures and styles and use them to produce websites***
2. ***Select and use website software tools and features to develop multiple page websites with multimedia and interactive features***
3. ***Publish and test multiple page websites with multimedia and interactive features***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 IT User NOS devised by e-Skills UK.

Support of the unit by a sector or other appropriate body
This unit was developed by e-Skills UK.

Assessment
This unit will be assessed as specified in the e-Skills IT User Assessment Strategy 2009.

Unit 328 Website software
Learning outcomes and assessment criteria

Outcome 1 Create structures and styles and use them to produce websites

The learner can:

1. ***Determine what website content and layout will be needed for each page and for the site***
2. ***Plan and create web page templates to layout content***
3. ***Select and use website features and structures to enhance website navigation and functionality***
4. ***Create, select and use styles to enhance website consistency and readability***
5. ***Provide guidance on laws, guidelines and constraints that affect the content and use of websites***
6. ***Explain what access issues may need to be taken into account***
7. ***Explain when and why to use different file types for saving content***
8. ***Store and retrieve files effectively, in line with local guidelines and conventions where available***

Outcome 2 Select and use website software tools and features to develop multiple page websites with multimedia and interactive features

The learner can:

1. ***Prepare content for web pages so that it is ready for editing and formatting***
2. ***Organise and combine information needed for web pages in line with any copyright constraints, including across different software***
3. ***Select and use appropriate editing and formatting techniques to aid meaning***
4. ***Select and use appropriate programming and development techniques to add features and enhance websites***
5. ***Select and use file formats that make information easier to download***
6. ***Check web pages meet needs, using IT tools and making corrections as necessary***

Outcome 3 Publish and test multiple page websites with multimedia and interactive features

The learner can:

1. ***Select and use appropriate testing methods to check that all elements and features of complex websites are working as planned***
2. ***Identify any quality problems with websites and explain how to respond to them***
3. ***Select and use an appropriate programme to upload and publish the website and make sure that it will download efficiently***
4. ***Respond appropriately to quality problems with websites to ensure outcomes are fit for purpose***

Teaching 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.

Outcome 1 Create structures and styles and use them to produce websites

The learner should be able to and understand:

Content and layout:

- ***Web page content and layout will vary according to the template, but may include:***
  - ***text (eg body text, headings, captions)***
  - ***images (eg still photographs, diagrams)***
  - ***numbers (eg tables, charts or graphs)***
  - ***background (eg colours, gradients, patterns, textures)***
  - ***structure (eg frames, side bars)***
  - ***moving images (eg animation, video clips)***
  - ***sound (eg clips linked to navigation, background music, video sound track)***
  - ***interactive components (eg message boards, forms, e-mail links, registration log-ins)***
  - ***down loads (eg pdf files, pod casts)***

Constraints affecting websites:

- ***Effect of copyright law (eg on music downloads or use of other people's images)***
- ***Acknowledgment of sources, avoiding plagiarism, provisions of the Data Protection Act;***
- ***accessibility standards, IPR***

Website features:

- ***Web page features will vary, but may include:***
  - ***navigation (eg action buttons, links, hot spots, menus, hyperlinks, pop-ups) o multimedia (eg animation, sound linked to actions, video clips, sound track)***
  - ***interactive (eg message boards, forms, downloads, pod casts, e-mail links, registration log-ins)***
  - ***e-commerce facilities***

Website access issues:

- ***The difficulties different users may have in accessing websites***
- ***Accessibility guidelines, ways to increase accessibility***
- ***Affect of download speeds (eg from different browser software, connection type, size of web page contents), ways to improve download speeds***
- ***Ways to improve search engine results***

Web page templates:

- ***Web page content and layout will vary according to the template, but may include:***
  - ***text (eg body text, headings, captions)***
  - ***images (eg still photographs, diagrams)***
  - ***numbers (eg tables, charts or graphs)***
  - ***background (eg colours, gradients, patterns, textures)***
  - ***structure (eg frames, side bars)***
  - ***moving images (eg animation, video clips)***
  - ***sound (eg clips linked to navigation, background music, video sound track)***
  - ***interactive components (eg message boards, database fields, forms, e-mail***

links, registration log-ins)
- *downloads (eg pdf files, podcasts)*

Web page styles:

- *Styles will vary according to the different elements of the website design, but may include:*
  - *typeface (eg font, colour, size and alignment of headings, captions or body text)*
  - *lines (eg type, thickness and colour of borders, tables, diagrams)*
  - *structure (eg size of frames, number of tabs, format of menu)*
  - *cascading style sheets*

File types:

- *Text (eg rtf, doc, pdf), images (eg jpeg, tiff, psd), charts and graphs (eg xls), sound (eg wav, MP3)*

Store and retrieve:

- *Files (eg create, name, open, save, save as, print, close, find, share)*
- *Version control; import/export*
- *File size; folders (eg create, name)*

Outcome 2 Select and use website software tools and features to develop multiple page websites with multimedia and interactive features

The learner should be able to and understand:

Combine information:

- *Combine images with sound (eg dub or overlay sound track onto film sequence; integrate a audio or video sequence with another application):*
  - *Techniques: copy and paste, insert, screen grabs/shots*
  - *File download (eg connect USB lead, drag and drop), file transfer protocol (FTP)*
  - *Forms of information: moving images, sound; pre-recorded, live, web-streaming*

Editing techniques:

- *Editing techniques will vary in line with the type of information, for example:*
  - *select, copy, cut, paste, undo, redo, drag and drop, find, replace, size, crop, position, change templates*

Programming and development techniques:

- *Creating links to bookmark text within a page, linking web pages together, adding a link to another website*
- *Altering simple code using programming language, creating code using an appropriate programming language*
- *Adding multimedia content to web pages*
- *Setting up a secure area, message board or e-mail link*
- *Adding meta tags*

File formats:

- *Change format of documents to RTF or HTML*

Check web pages:

- *Using help: Will vary depending on the content but may include, for example:*

- *Text: spell check; grammar check, type face and size, hyphenation*
- *Layout: page layout, margins, line and page breaks, tables, sections*
- *Images: size, alignment and orientation, suitability of file format, appropriate choice of colour mode and use of filters, fitness for purpose of image resolution*

Outcome 3 Publish and test multiple page websites with multimedia and interactive features

The learner should be able to and understand:

Testing methods:

- *Methods will vary but may include:*
  - *viewing web pages using browser software*
  - *testing navigation round pages within multiple page website*
  - *testing external links*
  - *testing multi-media and interactive elements*

Quality problems with websites:

- *Problems may vary, but could include:*
  - *content that is not appropriate for the template or missing*
  - *text that is not readable or missing*
  - *images that are oriented or sized wrongly*
  - *navigation that does not work as planned*
  - *multimedia features (eg sound levels, image resolution, synchronization of sound and images)*
  - *interactive features (eg response to posting a message or when key fields on forms are not completed, downloads not active)*

Upload and publish website:

- *Upload content to a template*
- *Use file exchange programme to upload and publish (eg FTP or HTTP)*
- *Improve loading speed of a website*
- *Submit to search engines*

Unit 329 Word processing software

Level: ***3***
Credit value: ***6***

Unit aims
This is the ability to use a software application designed for the creation, editing and production of largely text-based documents.

On completion of this unit a candidate should be able to select and use a range of advanced word processing software tools and techniques to produce complex and non-routine documents.

Word processing tools and techniques will be described as 'advanced' because:

- ***the software tools and functions will be complex and at times require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying;***
- ***the techniques required will be complex, and the process of selecting appropriate techniques may involve research, identification and application; and***
- ***the user will take full responsibility for the inputting, manipulating and outputting of the information.***

Examples of context: Typical documents will require problem solving and creative thinking and may include – complex reports and content for publications such as web pages, journals, newsletters or other printed materials.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will be able to:

1. ***Enter and combine text and other information accurately within word processing documents***
2. ***Create and modify appropriate layouts, structures and styles for word processing documents***
3. ***Use word processing software tools and techniques to format and present documents effectively to meet requirements***

Guided learning hours
It is recommended that 45 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT)

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment
This unit will be assessed by:

- *an assignment*
- *portfolio of evidence – classroom or work based*
- *professional discussion*
- *expert witness*
- *scenario*

Unit 329 Word processing software
Learning outcomes and assessment criteria

Outcome 1 Enter and combine text and other information accurately within word processing documents

The learner can:

1. *Summarise what types of information are needed for the document and how they should be linked or integrated*
2. *Use appropriate techniques to enter text and other types of information accurately and efficiently*
3. *Create, use and modify appropriate templates for different types of documents*
4. *Explain how to combine and merge information from other software or multiple documents*
5. *Combine and merge information within a document from a range of sources*
6. *Store and retrieve document and associated files effectively, in line with local guidelines and conventions where available*
7. *Select and use tools and techniques to work with multiple documents or users*
8. *Customise interface to meet needs*

Outcome 2 Create and modify appropriate layouts, structures and styles for word processing documents

The learner can:

1. *Analyse and explain the requirements for structure and style*
2. *Create, use and modify columns, tables and forms to organise information*
3. *Define and modify styles for document elements*
4. *Select and use tools and techniques to organise and structure long documents*

Outcome 3 Use word processing software tools and techniques to format and present documents effectively to meet requirements

The learner can:

1. *Explain how the information should be formatted to aid meaning*
2. *Select and use appropriate techniques to format characters and paragraphs*
3. *Select and use appropriate page and section layouts to present and print multi-page and multi-section documents*
4. *Check documents, meet needs, using IT tools and making corrections as necessary*
5. *Evaluate the quality of the documents produced to ensure they are fit for purpose*
6. *Respond appropriately to any quality problems with documents to ensure that outcomes meet needs and are fit for purpose*

Teaching 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.

Outcome 1 Enter and combine text and other information accurately within word processing documents

The learner should be able to and understand:

Types of information:
- ***Text, numbers, images, other graphic elements (eg lines, borders), hyperlinks, charts, objects***

Templates:
- ***Use existing templates***
- ***Create, amend and delete templates***

Combine information:
- ***Insert, size, position, wrap, order, group***
- ***Link information in a document to another source, link information from one type of software to information produced using different software***
- ***Mail merge documents and labels, merge fields***
- ***Hyperlinks***

Store and retrieve:
- ***File properties, protection, password protection***
- ***Versions, storage and backup locations***
- ***File formats, open rtf file in application, save file as text, rtf or html***
- ***Methods to reduce file size***
- ***Templates, stylesheets***

Work with multiple documents or users:
- ***Version control, audit and track changes, compare and merge documents***
- ***Document sharing and collaboration***

Customise interface:
- ***Shortcuts, toolbars, menus***
- ***Default settings***
- ***Start-up, language***

Outcome 2 Create and modify appropriate layouts, structures and styles for word processing documents

The learner should be able to and understand:

Requirements for structure and style:
- ***Document layout, house style, branding***

Tables and forms:
- ***Insert and delete cells, rows and columns, adjust row height and column width***
- ***Add table, complete forms and tables, convert text to table***
- ***Create and amend forms, merge and split cells, horizontal and vertical text alignment, cell margin, add borders and shading, sort, position, headings, totals; heading rows***
- ***Embedded spreadsheet data***

Format columns:
- ***Modify column number and width, add column breaks, add columns to whole document and part of a page***

Styles:
- ***Heading styles: apply or change existing styles to a word, line, paragraph or section***
- ***Define, organise and use new styles***

Page layout:

- ***Paper size and type, change page orientation, margins, header and footer, page and section breaks, page numbering, date and time, columns, adjust page set up for printing or web publishing, facing pages, booklets***

Document structure:
- ***Page breaks, columns, sections, Bookmarks, cross referencing using indexes and contents page, outlines, master and sub-documents***

Outcome 3 Use word processing software tools and techniques to format and present documents effectively to meet requirements

The learner should be able to and understand:

Format characters:
- ***Size, font style (typeface), colour, bold, underline, italic, superscript, subscript, special characters and symbols, spacing, position***

Format paragraphs:
- ***Alignment, numbering, line spacing, paragraph spacing***
- ***Indents, tabs, widows and orphans, outline***
- ***Borders, bullets, shading, sub-numbering***
- ***Custom styles, style sheet***
- ***Graphics, objects, text wrap***

Automate routines:
- ***Keyboard shortcuts, autotext, customise menus, macros***

Check word processed documents:

- *Spell check, grammar check, typeface and size, hyphenation*
- *Page layout, margins, line and page breaks, tables*
- *Print preview, accuracy, consistency, clarity*
- *Language and dictionary settings*
- *Cross referencing*

Quality problems with documents:

- *Will vary according to the content, for example:*
  - *text (eg styles, structure, layout)*
  - *images (eg size, position, orientation)*
  - *numbers (eg decimal points, results of any calculations)*
- *Links, cross references, versions*

Unit 334 Understand the potential of IT

Level: *3*
Credit value: *8*

Unit aims

The use of IT tools and systems can transform business communications and processes in a variety of contexts. Through this unit, the learner will develop an appreciation of the latest trends in technology, especially those which impact cyber security.

This unit is designed to allow IT Users to develop an understanding of the impact of IT on business, society and the individual. It has a particular emphasis on exploring the potential of new and emerging technologies.

The learner will consider how IT has and could further transform a particular organisation and the issues around introduction of new IT solutions and organisational IT security.

Learning outcomes

There are 5 learning outcomes to this unit. The learner will be able to:

1. ***Understand how IT is transforming business and industry***
2. ***Understand the impact of the internet and mobile communications on society and the individual***
3. ***Understand how IT is used in an organisation***
4. ***Understand the effect of introducing new IT tools and systems in an organisation***
5. ***Understand the methods used to enhance IT security in an organisation***

Guided learning hours

It is recommended that 70 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT).

- ***IPU: Improving productivity using IT***
- ***IPU:C1 Plan, select and use appropriate IT systems and software for different purposes***
- ***ITS: IT Security for Users***
- ***ITS:C1 Select, use and develop appropriate procedures to monitor and minimise security risk to IT systems and data***

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

All Learning Outcomes of this unit must be assessed by knowledge assessment.

This knowledge unit forms a core part of the Apprenticeship framework in IT User skills in England, Wales and Northern Ireland.

It will be assessed via short answer questions.

Unit 334 Understand the potential of IT
Learning outcomes and assessment criteria

Outcome 1 Understand how IT is transforming business and industry

The learner can:

1. *Explain the potential of IT to transform data management and business processes*
2. *Explain how environmental issues can affect the use of IT in business and industry*
3. *Evaluate how social and collaborative technologies are transforming business and industry*

Outcome 2 Understand the impact of the internet and mobile communications on society and the individual

The learner can:

1. *Explain how technology is transforming personal and social communication and interaction*
2. *Describe the main barriers to take-up or adoption of digital technologies by individuals and groups*
3. *Describe measures to increase accessibility to digital information*

Outcome 3 Understand how IT is used in an organisation

The learner can:

1. *Describe the movement and transfer of information in key technology-enabled business processes using appropriate IT tools to illustrate the information flow*
2. *Explain the principles of interaction between key components of the IT systems (hardware, software and communications)*
3. *Review how the use of bespoke and/or specialist systems contribute to organisational success*

Outcome 4 Understand the effect of introducing new IT tools and systems in an organisation

The learner can:

1. *Evaluate key factors influencing the successful introduction of new IT tools and systems*
2. *Recommend a development in IT tools or systems for IT users highlighting the benefits, risks, opportunities and costs*

Outcome 5 Understand the methods used to enhance IT security in an organisation

The learner can:

1. *Evaluate the main risks to IT security*
2. *Evaluate the control measures in place to maximise personal and data protection*
3. *Explain how organisations are using innovative systems and software to help improve cyber security*

Teaching 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.

Learners should be encouraged to illustrate their points with examples from their own organisation, or an organisation which they know very well, although their research into potential of IT should include organisations of different sizes, industry sectors and levels of IT. Case studies would provide a helpful approach to develop a broader perspective.

Outcome 1 Understand how IT is transforming business and industry
The learner should be able to understand and describe using examples

IT for data management
- ***Database management***
- ***Data quality and integrity***
- ***Data access, security and privacy***
- ***Document, record and content management***
- ***Contact management***

IT for business processes
- ***Sales and marketing***
- ***Finance and resource management***
- ***Customer service and communications***
- ***Supply chain management***
- ***Research and development***
- ***Human resource management***
- ***Learning and development***

Environmental issues
- ***Industrial waste and its disposal – including printer cartridges and toner, redundant IT equipment***
- ***Sustainable use of raw materials – email / IM replacing paper***
- ***Carbon emissions – using IT to monitor emissions, reduce travel to meetings***
- ***Using IT to raise awareness of environmental issues***

Social and collaborative technologies
- ***Third party social networks such as LinkedIn, Facebook, Twitter***
- ***In-house social networks such as Ning and communication tools such as Yammer***
- ***Communities of practice***
- ***Blogs, wikis, podcasts***
- ***User-generated content, best practice video from both within and outside the organisation, such as YouTube***
- ***Enterprise-wide information services such as SharePoint***

Effect on business and industry

- *Communications with suppliers and customers*
- *Internal staff communications*
- *Access to online experts*
- *Use as marketing / e-marketing tools*
- *Use in learning and development*

Outcome 2 Understand the impact of the internet and mobile communications on society and the individual

The learner should be able to understand and describe using examples

Personal and social communication

- *Easy access to information*
- *Mobile technologies*
- *Storing, sharing and tagging resources such as photos, videos and audio files*
- *Issues around data protection, privacy, safety and security*
- *Instant messaging*
- *Issues of user safety and privacy of information*

Barriers to take up relating to

- *IT and its use - IT infrastructure, broadband speed, individual IT user skills, digital literacy*
- *Availability and cost*
- *Time*
- *Reluctance by users, their line or senior managers*
- *Impact on minority interest groups*

Increase accessibility of digital information

- *Supported by government policy and services*
- *Equality and diversity policy and legislation*
- *Assistive technologies that can improve accessibility to hardware and software*
- *Guidelines for website accessibility*

Outcome 3 Understand how IT is used in an organisation

For this outcome the learner will look at the detail of IT use in a particular organisation to support the business processes.

The learner should be able to understand and describe using examples

Information flow, for example in

- *Ordering – product advertised, customer selects, places order, invoice raised, goods delivered, stock level adjusted*
- *Recruitment – Job description planned, job advertised, applications shortlisted, interviews, appointments, induction*

IT tools to illustrate information flow

- *Mind-mapping software*
- *Flow-charting software*

Key components of IT system

- *Hardware, including networks*
- *Software, including operating systems, productivity tools and applications*
- *Communications systems, including email and messaging services*
- *Web components, including customer-facing websites, intranet, extranet*

Principles of interaction

- *Software interoperability*
- *ISO and proprietary standards*

What systems and software are in use

- *Bespoke systems – such as for order processing, fault recording, data management*
- *Specialist systems – such as GPS systems, process control, manufacturing*

Outcome 4 Understand the effect of introducing new IT tools and systems in an organisation

For this outcome the learner will look at how new IT systems and tools are introduced within a business and develop the cost-benefit analysis of a new introduction of their own.

The learner should be able to understand and describe using examples

Introducing new IT tools and systems

- *Phased introduction*
- *Parallel operation*
- *Lock in to proprietary products or manufacturer*
- *Cost and implications of change*
- *Change management and ensuring staff buy-in*
- *Risks associated with new systems, such as cost, vulnerability, user acceptance*

Key factors

- *Change management approach*
- *User testing*
- *Documentation*
- *End-user training and development*

Development in IT tools or systems for IT users

- *To help their team or department*
- *To help the wider users in the organisation*
- *New application software or productivity tools*
- *New templates or job aids for working with existing software*

Outcome 5 Understand the methods used to enhance IT security in an organisation

For this outcome the learner will look at the detail of IT use in a particular organisation to support business.

The learner should be able to understand and describe using examples

Risks to security (see also Unit 305 IT Security for Users for additional examples)

- ***Threats to system performance such as e-mail "spam", malicious programs (including viruses, malware, worms, trojans, spyware, adware and rogue dialers) and hackers; hoaxes***
- ***Threats to information security, such as from loss or theft (including mobile devices and USB storage devices), unauthorized access, accidental file deletion***
- ***Unauthorised software or downloads***
- ***Malpractice***

Control measures

- ***Risk assessment***
- ***Access controls including physical access, password protection, user authentication systems such as biometrics, smart cards***
- ***Firewall, spyware, anti-spam software, anti-virus software***
- ***Security patches and updates***
- ***Secure websites, secure payment mechanisms***
- ***Backup and retrieval systems for system continuity***
- ***System for reporting security threats or breaches***
- ***Proxy servers***
- ***Encryption***
- ***Policies for***
  - ***Email/Internet use***
  - ***IT security***
  - ***Best practice for backups, disaster recovery, data storage, project management and IT administration.***
  - ***Acceptable use of IT facilities***
  - ***Health and Safety***

Improving cyber security

- ***Reducing risk, raising staff awareness***
- ***Networks – reasons for vulnerability and how they are secured***
- ***Where to learn of recent developments in IT security***

Unit 335 Developing personal and team effectiveness using IT

Level: *3*
Credit value: *4*

Unit aims

There are a range of IT tools and techniques that IT users can use to support their own personal and professional development.

Through this unit, learners start to recognise and respect diversity, individual differences and perspectives and understand how IT can be used to support and enhance both personal and team effectiveness.

Learners will consider how they use information management tools and collaborative workspaces to support personal and team activities.

Learning outcomes

There are 4 learning outcomes to this unit. The learner will be able to:

1. ***Understand how IT can support personal development***
2. ***Use IT to support personal development***
3. ***Understand how IT can support the development of team effectiveness***
4. ***Work as a member of a team to achieve defined goals and implement agreed plans***

Guided learning hours

It is recommended that 30 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Level 3 the National Occupational Standards for IT users devised by e-Skills UK (Sector Skills Council for ICT).

- ***IPU:C1 Plan, select and use appropriate IT systems and software for different purposes***
- ***IPU:C2 Evaluate the selection and use of IT tools to make sure that activities are successful***
- ***PIM: Personal Information Management Software***
- ***The intermediate user can use a range of personal information management tools and techniques to organise and prioritise their own time and manage multiple tasks and calendars***
- ***UCT: Using Collaborative Technologies***
- ***UCT:C4 Manage tasks using collaborative technologies***

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by e-Skills UK, the Sector Skills Council for ICT.

Assessment

Learning Outcomes 1 and 3 of this unit must be assessed by knowledge assessment. This represents 2 credits from a unit total of 4.

This unit forms part of the Apprenticeship framework in IT User skills in England, Wales and Northern Ireland. It offers clear opportunities for the learner to provide evidence of achievement of the Personal Learning and Thinking Skills within the context of the use of IT by self and others.

It will be assessed via an assignment which can be found on the City & Guilds website.

Unit 335 Developing personal and team effectiveness using IT

Learning outcomes and assessment criteria

Outcome 1 Understand how IT can support personal development

The learner can:

1. ***Describe how IT tools and resources can support own learning and development***
2. ***Explain how IT tools and systems can be used to support personal performance improvement***

Outcome 2 Use IT to support personal development

The learner can:

1. ***Implement IT tools and systems to support personal performance and time management***
2. ***Develop and implement an action plan to use IT to improve own working practice***

Outcome 3 Understand how IT can support the development of team effectiveness

The learner can:

1. ***Describe the roles and responsibilities of team members***
2. ***Explain how IT tools and systems can be used to enhance effective team communications and collaboration***
3. ***Compare ways that IT can be used to overcome obstacles to effective teamwork***

Outcome 4 Work as a member of a team to achieve defined goals and implement agreed plans

The learner can:

1. ***Assess contribution of own use of IT to team activities***
2. ***Provide feedback to others on their use of IT in a constructive and considerate manner***
3. ***Review feedback from others on own performance and adapt behaviour where appropriate***
4. ***Assist others to use new IT tools and systems***

Teaching 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.

This unit offers a number of opportunities to embed development of Personal Learning and Thinking Skills (PLTS). Some references for these are given in brackets beside the relevant item although these are by no means exhaustive (eg CT1 – Creative Thinkers 1 – Generate ideas and explore possibilities).

Outcomes 1 and 2 can be taught holistically, with the learner developing both the understanding of what tools and personal development processes are available in their organisation, how to locate other tools of potential use and then using selected tools to support their own work and development.

Outcome 1 Understand how IT can support personal development

The learner should be able to understand the purpose of

Tools and resources to support learning

- ***Provision within own organization – eg Virtual Learning Environment/Learning Management System to organize learning and track progress***
- ***Range of e-learning courses – available in-house or more widely via the internet to support own subject specialism***
- ***Tools to aid learning and sharing from others - communities of practice and social networks***
- ***Web 2.0 tools to share best practice from within and outside own organization, such as blogs, podcasts, vodcasts and wikis***
- ***Tools to aid personal reflection – e-portfolios, personal learning log***
- ***Mobile devices to access content and assessment***
- ***Tools to support meetings – video conferencing, virtual meetings***

Tools to support personal improvement

- ***Range of software applications***
- ***Templates, shortcuts, macros and menus to automate processes***
- ***Research and plan solutions for performance improvement or greater efficiencies in regular tasks and activities***

Outcome 2 Use IT to support personal development

The learner should be able to understand the purpose of, and use

Tools and systems for managing time effectively (SM3)

- ***Personal calendars***
- ***Synchronising shared calendars***
- ***Tools for scheduling online meetings***
- ***Tools for note-taking***
- ***Tools to track time usage***
- ***Auto-scheduling of regular tasks***

Action planning (RL2)

- *Setting SMART goals*
- *Organising actions – using Mind mapping or Project management tools*
- *Decision support methods such as SWOT or PEST analysis, scenario planning*
- *Implementing plan and evaluating progress - performance review, benchmarking, appraisal*

Outcomes 3 and 4 consider the learner in the context of team member or leader, working with others towards shared goals. The underpinning knowledge in Outcome 3 develops ways in which IT can be used to support team activities. Although not all of these will be relevant, the learner will start to think creatively about how they can be applied in their own team situation and propose solutions for improving team performance with IT.

Outcome 3 Understand how IT can support the development of team effectiveness

The learner should be able to understand

- *The roles and responsibilities of team members (SM1) Differing skills and aptitudes of team members Leadership / ownership of tasks and activities*
- *Own role and responsibilities*

Collaborative IT tools and systems used for (TW, EP)

- *Project planning*
- *Project and task execution*
- *Access control, tracking changes and multi-edit control within applications such as shared documents*
- *Team meetings and events*
- *Review and evaluation of team activities*

IT to overcome obstacles to effective teamwork (TW3)

- *Decision support using games and complex simulations*
- *Project and task management using project management tools*
- *Improving team communications using email and web 2.0 tools*
- *Sharing ideas and files - setting up webinars, virtual meetings and 'cloud' resources for use by the team*
- *Difficulties of remote working and geographically dispersed teams*
- *Resolving compatibility issues between systems*

Outcome 4 Work as a member of a team to achieve defined goals and implement agreed plans

The learner should be able to

Review contribution (RL1)

- *How IT was used to aid completion of tasks – to time, quality and budget*
- *How IT was used to aid team communications*
- *How own user skills were used to enhance team performance*
- *Areas of strength and weakness*

Provide feedback (TW4, 6)

- *Content - information specific, skill-focused, based on observation of use of IT tools and systems*
- *Manner – language, tone, sincerity, appreciation, concern*
- *Timing – real-time, close to event, just-in-time*

- ***Frequency – determined by project/task; determined by organisation processes***

Review feedback (RL4)

- *Identify opportunities and achievements (RL1)*
- *Evaluate experiences and progress (Rl5)*
- *Points for personal development (RL3)*

Assist others

- *Creating user manuals or guidelines*
- *Designing job aids, hints and tips*
- *Coaching or mentoring other team members*
- *Supporting IT departments in system migration or roll-out.*

Unit 337 3D Drawing and planning software

Level: ***3***
Credit value: ***5***

Unit aim:
This unit is about the ability to use a software application, such as a Computer-Aided Design application, designed to create, modify and layout advanced 3D designs and plans for buildings to display in print or on a screen.

This unit is about the skills and knowledge required by an IT to select and use a wide range of advanced 3D design and planning software tools and techniques to create complex and non-routine designs.

3D design software tools and techniques will be defined as 'advanced because:

- ***the software tools and functions used will be complex and, at times, require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying***
- ***the inputting, manipulating and outputting techniques will be multi-step and complex, and will involve research, identification and application***
- ***the user will take full responsibility for inputting, structuring, editing and presenting the information.***

Note: The term 3D plans is used throughout the learning outcomes and performance criteria. By plans we mean the outputs from 3D design, drawing and planning tools used in the preparation of building designs and plans.

Learning outcomes
There are 3 learning outcomes to this unit. The learner will:

1. ***be able to prepare 3D plans to meet requirements***
2. ***be able to use 3D planning software tools and techniques to edit and manipulate 3D plans***
3. ***be able to enhance the presentation of 3D plans.***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This will be assessed via an assignment which can be found on the City & Guilds website.

Unit 337 3D Drawing and planning software
Learning outcomes and assessment criteria

Outcome 1 Be able to prepare 3D plans to meet requirements

The learner can:

1. ***explain how the context in which the plans will be used affects composition and display***
2. ***configure software for use***
3. ***use software tools to create objects for plans***
4. ***explain the selection of formats for saving 3D plans***
5. ***create templates and styles to meet requirements***
6. ***apply guidelines and conventions for the storage and use of data.***

Outcome 2 Be able to use 3D planning software tools and techniques to edit and manipulate 3D plans

The learner can:

1. ***use sketching tools to sketch geometry***
2. ***use software tools and techniques to manipulate objects***
3. ***use software features to annotate objects***
4. ***modify objects for display.***

Outcome 3 Be able to enhance the presentation of 3D plans

The learner can:

1. ***explain the technical factors affecting 3D plan quality***
2. ***preview and render 3D plans***
3. ***use visualisation functions to present 3D plans***
4. ***review outcomes to ensure 3D plans are fit for purpose.***

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare 3D plans to meet requirements

Configure: customise user interface; set preferences.

Create objects:

- ***Building objects***
- ***Combine objects from different sources***
- ***Imported objects; composition; object properties.***

File type:

- ***File size; format; purpose; context; display device.***

Guidelines and conventions:

- ***Set by employer or organisation.***
- ***Policies relating to security; backup; data protection.***
- ***Copyright.***

Storage:

- ***Filenames; folders; projects; version control; collaborative projects; guidelines for data format.***
- ***File management will vary according to the application.***

Outcome 2 Be able to use 3D planning software tools and techniques to edit and manipulate 3D plans

Geometry:

- ***Lines; arcs; polygons; rectangles; surfaces; perspective.***

Manipulate objects:

- ***Select; move; rotate; scale; drafting guides; format; geometry; align; object properties; pivot; increase precision.***

Modify objects:

- ***Lighting; shading; textures; materials.***

Outcome 3 Be able enhance the presentation of 3D plans

Technical factors:

- ***Display device; device settings; lighting types and attributes; animation speed.***

Visualisation:

- *Rotations*
- *Lighting effects*
- *Walkthroughs;*
- *Animations*
- *Printing.*

Review outcomes:

- *Evaluate the quality of the information used*
- *Produce drafts*
- *Review against initial plans*
- *Check with intended audience*
- *Impact of work on others.*

Unit 338 3D Design software

Level: ***3***
Credit value: ***5***

Unit aim:
This unit is about the ability to use a software application, such as a computer-aided design application, designed to create, modify and layout intermediate 3D designs for science, technology, engineering, arts and manufacturing to display in print or on a screen.

This unit is about the skills and knowledge required by an IT user to select and use a wide range of advanced 3D design and planning software tools and techniques to create complex and non-routine designs.

3D design software tools and techniques will be defined as 'advanced' because:

- ***the software tools and used will be complex and, at times, require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying***
- ***the inputting, manipulation and outputting techniques will be multi-step and complex, and will involve research, identification and application***
- ***the user will take some responsibility for inputting, structuring, editing and presenting the information.***

Learning outcomes
There are 3 learning outcomes to this unit. The learner will:

1. ***be able to develop 3D designs to meet requirements***
2. ***be able to use 3D design software tools and techniques to edit and manipulate 3D designs***
3. ***be able to enhance the presentation of 3D designs.***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This unit will be assessed by portfolio of evidence – classroom or work based.

Unit 338 3D Design software
Learning outcomes and assessment criteria

Outcome 1 Be able to develop 3D designs to meet requirements

The learner can:

1. ***explain what designs are needed***
2. ***explain how context of design use affects composition and display***
3. ***configure software for use***
4. ***explain the selection of formats for saving 3D designs***
5. ***create templates and styles to meet requirements***
6. ***use software tools to create and constrain design elements***
7. ***apply guidelines and conventions for the storage and use of data.***

Outcome 2 Be able to use 3D design software tools and techniques to edit and manipulate 3D designs

The learner can:

1. ***combine design elements for different purposes***
2. ***use software tools and techniques to manipulate designs in 3D***
3. ***use software features to modify 3D designs***
4. ***apply software tools and techniques to transform 3D designs***
5. ***use software features to annotate objects.***

Outcome 3 Be able to enhance the presentation of 3D designs

The learner can:

1. ***explain the technical factors affecting the quality of 3D designs***
2. ***use rendering techniques to enhance display***
3. ***select methods to present 3D designs***
4. ***use animation techniques to enhance the presentation of 3D designs***
5. ***review outcomes to ensure that 3D designs are fit for purpose.***

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to develop 3D designs to meet requirements

Configure:

- ***Customise user interface***
- ***Set preferences***
- ***Coordinate system.***

File type:

- ***File size; format; purpose; context; display device; portability; compatibility.***

Create and constrain design elements:

- ***primitives; drafting guides; shape; 3D geometries; drafting guides; sketch constraints: geometric; dimensional; freeform; combine objects from different sources; import objects; composition.***

Guidelines and conventions:

- ***Set by employer or organisation***
- ***Policies relating to security, backup and data protection;***
- ***Copyright.***

Storage:

- ***filenames; folders; projects; presentations; version control; collaborative projects; guidelines for data format; file management will vary according to the application.***
- ***Export files.***

Outcome 2 Be able to use 3D design software tools and techniques to edit and manipulate 3D designs

Purposes:

- ***Parts; assemblies/sub-assemblies; presentations; drawings; sheet metal.***

Manipulate designs:

- ***Positioning; geometry; views; library objects; cloning; mirrors; perspective.***

Modify 3D designs:

- ***Object properties***
- ***Increase precision***
- ***Boolean operations***
- ***Textures; materials.***

Transform 3D designs:

- *Surface modelling*
- *Tessellation*
- *Meshes*
- *Solid modelling*
- *Flat patterns.*

Outcome 3 Be able to enhance the presentation of 3D designs

Technical factors:

- *Display device*
- *Device settings*
- *Lighting*
- *Animation speed.*

Present 3D designs:

- *3D screen views*
- *2D printing*
- *3D printing*
- *Visualisation techniques*
- *Display modes*
- *Annotation.*

Review outcomes:

- *Evaluate the quality of the information used; produce drafts*
- *Review against initial designs;*
- *Check with intended audience*
- *Impact of work on others.*

Unit 339 3D Animation software

Level: ***3***
Credit value: ***5***

Unit aim:
This unit is about the ability to use 3D animation design software application, to create edit and present 3D animation and games designs for display on a screen.

This unit is about the skills and knowledge required by an IT user to select and use a wide range of advanced 3D animation software tools and techniques to create complex and non-routine designs.

3D animation software tools and techniques will be defined as 'advanced' because:

- ***the software tools and functions will be complex and, at times, require new learning, which will involve having the idea that there may be a tool or function to do something (eg improve efficiency or create an effect), exploring technical support, self-teaching and applying.***
- ***the inputting, manipulation and outputting techniques will be multi-step and complex and will involve research, identification and application***
- ***the user will take full responsibility for inputting, structuring, editing and presenting the information.***

Learning outcomes
There are 3 learning outcomes to this unit. The learner will:

1. ***be able to compose 3D animated sequences to meet requirements***
2. ***be able to use 3D animation software tools and techniques to model 3D animated sequences***
3. ***be able to enhance the presentation of 3D animated sequences.***

Guided learning hours
It is recommended that 40 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Assessment
This will be assessed via an assignment which can be found on the City & Guilds website.

Unit 339 3D Animation software
Learning outcomes and assessment criteria

Outcome 1 Be able to compose 3D animated sequences to meet requirements

The learner can:

1. *explain how the context in which an animated sequence will be used, affects its composition*
2. *configure software for use*
3. *use software tools to input information*
4. *organise information for animated sequences*
5. *describe factors affecting the selection of file type*
6. *apply guidelines and conventions for the storage and use of data.*

Outcome 2 Be able to use 3D animation software tools and techniques to model 3D animated sequences

The learner can:

1. *use software tools and techniques to manipulate objects in 3D*
2. *use software features to transform objects*
3. *modify objects for display in 3D*
4. *animate objects in 3D.*

Outcome 3 Be able to enhance the presentation of 3D animated sequences

The learner can:

1. *preview and render animated sequences*
2. *describe the features and constraints of 3D animation software and display devices*
3. *respond to quality issues*
4. *explain how lighting and shading can be used to enhance display*
5. *review outcomes to ensure that 3D animated sequences are fit for purpose.*

Teaching 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.

Throughout this unit there are opportunities to contextualise the learning and relate it to learners' interests, using examples and case studies.

Outcome 1 Be able to prepare objects for 3D animation

Configure:

- ***Customise user interface; sets preferences.***

Input information:

- ***Graphic objects; text, audio; images; clones; imported objects.***

Organise information:

- ***Outlines; hypergraph; layers; combine objects from different sources; composition; scene management.***

File type:

- ***File size; format; purpose; context; display device; portability; compatibility.***

Guidelines and conventions:

- ***Set by employer or organisation;***
- ***Policies relating to security, backup and data protection; compliance; audit and reporting requirements;***
- ***Copyright.***

Storage:

- ***Filenames; folders; projects; version control; collaborative projects - guidelines for data format; file export;***
- ***File management will vary according to the application.***

Outcome 2 Be able to use 3D animation software tools and techniques to model 3D animated sequences

Manipulate objects:

- ***Select; move; rotate; scale; align; object priorities.***

Transform objects:

- ***Pivot; bevel; curves; polygons; surfaces; output geometry.***

Modify objects:

- ***Lighting; shading; textures; materials; perspective.***

Animate objects:

- ***Key frames; controls; playback; motion path; deformations.***

Outcome 3 Be able to prepare objects for 3D animation

Render:

- ***Batch rendering; IPR rendering; ray-tracing; settings.***

Quality:

- ***Display device; adjust settings; lighting types and attributes; animation speed.***

Review outcomes:

- ***Evaluate the quality of the information used; produce drafts; review against initial plans; check with intended audience; impact of work on others.***

Unit 340 Maintain effective communications and information transfer in an aviation environment

Level: *3*
Credit value: *5*

Unit aim:
The purpose of this unit is for learners to demonstrate that they can receive and supply information using the correct equipment in an aviation environment.

Learning outcomes
There are 4 learning outcomes to this unit. The learner will:

1. ***be able to maintain effective aviation communications***
2. ***understand how to maintain effective aviation communications***
3. ***be able to maintain the effective transfer of aviation information***
4. ***understand how to maintain the effective transfer of aviation information.***

Guided learning hours
It is recommended that 39 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is directly related to GoSkills National Occupational Standard Unit 13 – Maintain effective communications and information transfer in an aviation environment from the Aviation Operations on the Ground suite.

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by GoSkills.

Assessment
This unit should be assessed predominantly in the workplace through observation, along with other sources of evidence such as, witness testimony, questioning and professional discussion. Realistic workplace simulation may be used to assess areas that cover non routine situations. All simulations using specially constructed environments need to be approved by the Awarding Organisation prior to use. The setting up or devising of assessment situations do not need to be approved by the Awarding Organisation if they take place in the normal workplace environment.

Unit 340 Maintain effective communications and information transfer in an aviation environment

Learning outcomes and assessment criteria

Outcome 1 Be able to maintain effective aviation communications

The learner can:

1. ***ensure all communications are responded to within the correct timescale***
2. ***ensure the most appropriate form of communication equipment is used at all times***
3. ***make sure that communication equipment is used effectively***
4. ***deal with malfunctioning communication equipment in line with organisational procedures***
5. ***ensure people communicate in a way that is appropriate to the equipment being used***
6. ***ensure the correct codes and phrases are used when communicating***
7. ***follow appropriate codes, procedures and guidelines, which could be aviation industry specific and/or organisation specific, when communicating***
8. ***maintain alternative communication routes in event of an equipment failure.***

Outcome 2 Understand how to maintain effective aviation communications

The learner can:

1. ***explain the acceptable timescales for communications in line with organisational procedures***
2. ***explain available lines and methods of communication, including:***
   a. ***oral***
   b. ***written***
   c. ***electronic***
   d. ***carried out by self***
   e. ***carried out by others***
3. ***explain how to use communications equipment including:***
   a. ***telephone***
   b. ***electronic***
   c. ***radiotelephone***
   d. ***megaphone***
4. ***explain organisational procedures relating to use of communications equipment***
5. ***explain organisational procedures regarding malfunctioning equipment***
6. ***explain relevant aviation guidelines, procedures and standard phrases***
7. ***explain commonly used aviation codes relevant to own job role; and sources of information of less commonly used codes***
8. ***demonstrate the phonetic alphabet and explain why it is used***
9. ***explain organisational reporting procedures.***

Outcome 3 Be able to maintain the effective transfer of aviation information

The learner can:

1. *check stored information at regularly intervals to make sure it is intact*
2. *ensure information is passed on to appropriate people*
3. *prioritise transferring information in line with organisational aims*
4. *ensure information supplied is accurate, complete and relevant*
5. *check and update information, both written and electronic, before responding to information requests*
6. *make sure that confidential and commercially sensitive information is appropriately restricted.*

Outcome 4 Understand how to maintain the effective transfer of aviation information

The learner can:

1. *explain organisational systems for:*
   a. *storing information*
   b. *processing information*
2. *explain what is confidential and commercially sensitive information*
3. *explain organisational procedure for passing on messages*
4. *give examples of requests for information from:*
   a. *seniors*
   b. *colleagues*
   c. *external sources.*

Unit 241 Operate an IT system in the aviation industry

Level: ***2***
Credit value: ***2***

Unit aim:
The purpose of this unit is for learners to demonstrate that they can use an IT system available in their organisation which is relevant to their work.

Learning outcomes
There are 2 learning outcomes to this unit. The learner will:

1. ***be able to use an IT system***
2. ***Know how to use an IT system.***

Guided learning hours
It is recommended that 19 hours should be allocated for this unit. This may be on a full-time or part- time basis.

Details of the relationship between the unit and relevant national occupational standards
This unit is directly related to GoSkills National Occupational Standard Unit 66 – Operate an IT System in the aviation industry from the Aviation Operations on the Ground suite.

Endorsement of the unit by a sector or other appropriate body
This unit is endorsed by GoSkills.

Assessment
This unit should be assessed predominantly in the workplace through observation, along with other sources of evidence such as witness testimony, questioning and professional discussion.
Realistic workplace simulation may be used to assess areas that cover non routine situations.
All simulations using specially constructed environments need to be approved by the Awarding Organisation prior to use. The setting up or devising of assessment situations do not need to be approved by the Awarding Organisation if they take place in the normal workplace environment.

Unit 241 Operate an IT system in the aviation industry
Learning outcomes and assessment criteria

Outcome 1 Be able to use an IT system

The learner can:

1. ***start up and correctly use the different types of IT systems and hardware used in their work***
2. ***use IT hardware in a way that conforms with good health and safety practice***
3. ***identify and correct common errors on the IT systems and hardware used***
4. ***seek immediate assistance when difficulties occur with the IT system***
5. ***maintain work schedules during system failures and ensure files are updated when the system is restored***
6. ***close down the IT system without damage and maintaining security of data***
7. ***ensure computer hardware is kept securely located***
8. ***have regard for relevant legal regulations when operating IT systems.***

Outcome 2 Know how to use an IT system

The learner can:

1. ***describe the computer hardware available in the organisation and how to optimise its use***
2. ***describe the health and safety requirements in operating IT hardware***
3. ***describe the limits of own personal IT technical competence and how to get appropriate advice both on the use of IT systems and remedial action in the event of a system failure***
4. ***describe the effect of system failures on own work and the importance of updating data in the IT system when the failure has been rectified***
5. ***describe the IT systems closing down procedure and the organisation's policy for storing and securing data***
6. ***describe the relevant security and legal regulations including data protection legislation, copyright and appropriate health and safety legislation.***

Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the Centres and Training Providers homepage on www.cityandguilds.com.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- ***The centre and qualification approval process***
- ***Assessment, internal quality assurance and examination roles at the centre***
- ***Registration and certification of candidates***
- ***Non-compliance***
- ***Complaints and appeals***
- ***Equal opportunities***
- ***Data protection***
- ***Management systems***
- ***Maintaining records***
- ***Assessment***
- ***Internal quality assurance***
- ***External quality assurance.***

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- ***Regulatory Arrangements for the Qualifications and Credit Framework (2008)***
- ***SQA Awarding Body Criteria (2007)***
- ***NVQ Code of Practice (2006)***

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The centre homepage section of the City & Guilds website also contains useful information on such things as:

- ***Walled Garden: how to register and certificate candidates on line***
- ***Events: dates and information on the latest Centre events***
- ***Online assessment: how to register for e-assessments.***

Useful contacts

Please visit the Contact us section of the City & Guilds website.

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