

## Higher National Unit Specification

### General information for centres

**Unit title:** Using Software Applications Packages

**Unit code:** D85F 34

**Unit purpose:** This unit is designed to enable candidates to use an IT system and software applications packages effectively and responsibly to process a range of types of data. Activities will be centred on applying a range of skills using more than one software applications package. Candidates will learn how to integrate different types of data from more than one application and how to carry out searches in order to extract and present relevant information from electronic data sources.

On successful completion of the unit candidates will be able to:

- 1 Operate a range of IT equipment paying due attention to other users
- 2 Use a range of software application packages effectively and responsibly
- 3 Find information from suitable computer data sources.

**Credit value:** 1 HN Credit at SCQF level 7: (8 SCOTCAT credit points at SCQF level 7)

*SCQF (the Scottish Credit and Qualifications Framework) brings Scottish qualifications into a single framework of 12 levels ranging from SQA Access 1 to doctorates. The SCQF includes degrees; HNC/Ds; SQA National Qualifications; and SVQs. Each SQA Unit is allocated a number of SCQF credit points at a specific level. 1 SCQF point = 10 hours of learning. HN candidates are normally expected to input a further number of hours, matched to the credit value of the Unit, of non-contact time or candidate-led effort to consolidate and reinforce learning.*

**Recommended prior knowledge and skills:** Access to this unit will be at the discretion of the centre, however it would be useful if the candidate had good keyboard and mouse skills prior to attempting this unit. It is recommended that the candidate have some familiarity with computers and software applications packages, although this need not have been gained in a formal environment. This may be evidenced by the possession of appropriate National Units or courses.

**Core skills:** This unit gives automatic certification of the following core skill:

*Using Information Technology: Intermediate 2*

## Higher National Unit specification: statement of standards

**Unit title:** Using Software Applications Packages

**Unit code:** D85F 34

**Context for delivery:** This unit provides a solid basis on which further IT skills can be built if required. It will enable candidates to use IT systems with minimal support. Candidates are expected to achieve effective results when using IT software. Electronic data sources are to be used. Files should be provided for candidates as appropriate, to negate the need for them to enter large amounts of text or data.

**Assessment Strategy:** This unit is largely of a practical nature. An observation checklist is required for Outcome 1. The other 2 outcomes can be assessed by a single assessment containing a number of tasks in the form of a project or case study. Candidates will be required to submit evidence in the form of printouts, listings, screen dumps or disk based evidence to demonstrate that they have carried out the requirements. Files should be provided for candidates as appropriate to negate the need for them to enter large amounts of text or data. Candidates should have access to on-line help.

Since the core skill of *Using Information Technology* at Intermediate 2 is embedded in this unit, it is strongly recommended that assessment centres follow the guidelines given. Centres wishing to use a different assessment model should seek prior moderation of the assessment instrument(s) they intend to use to ensure that the core skills are covered.

The sections of the Unit stating the Outcomes, Knowledge and/or skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

This unit is included in a number of HNC and HND frameworks. It is recommended that it should be taught and assessed within the particular group award to which it contributes.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Using Software Applications Packages

### **Outcome 1**

Operate a range of IT equipment paying due attention to other users

#### **Knowledge and/or skills**

- The different components of a computer system and how to use them, e.g. mouse or other pointing device, keyboard, monitor, disk drive, processor, printer, scanner, etc.
- The functions of operating system tools, e.g. file managers, print managers, control panels and how to use them.
- The ways in which data can be kept secure (e.g. passwords, back ups, virus protection) and how security procedures can be used to meet the needs of users of a computer system.

#### **Evidence requirements**

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can:

- Use 5 hardware devices (e.g. mouse, keyboard, printer, monitor, disk drive, scanner)
- Start up and close down the operating system
- Open and close software packages
- Locate data and applications
- Use a filing system (e.g. to organise folders and sub-folders, applying naming conventions)
- Use tools within the operating system (e.g. file managers, print managers and control panels)
- Use security measures responsibly and with consideration for the needs of other users (e.g. passwords, backups, virus protection).

The evidence for this outcome should be by submission of an observation checklist covering all the points above. Candidates must also produce printouts to show changes made to their filing system and to identify backup files.

#### **Assessment guidelines**

It is recommended that candidates be given a practical exercise that ensures that all the points in the evidence requirements are covered. Assessors would then complete the observation checklist appropriately.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Using Software Applications Packages

### Outcome 2

Use a range of software application packages effectively and responsibly

#### Knowledge and/or skills

- Selection of **three** software applications packages
- How to use straightforward features of a range of software application packages
- How to use complex features of one software application package
- How to process and output data

NB: the software applications packages may be any from word/text processing, spreadsheet, database, simulation, graphics, communications (e.g. Internet, intranet, email, etc), audio/music, animation, video, multimedia, desktop publishing, programming language, data logging and retrieval, control or other suitable packages).

#### Evidence requirements

Candidates will need evidence to demonstrate their skills and/or knowledge by showing that they can:

- Select software applications packages which are appropriate to meet the identified information requirements
- Enter, edit and output data - for **all three** application packages
- Use **one** application package in depth, using at least **three** or more complex features, (e.g. use templates, auto-correction, tables, graphics, merge and indexing in a word processing package)
- Integrate at least **two** different data types in **one** application package (e.g. text and graphics, text and number, or graphics and sound)
- Output information from **at least three** software application packages in one or more appropriate formats to meet a given specification
- The evidence for this outcome must be in the form of a document, design, composition, model or presentation covering all the evidence requirements shown above.

#### Assessment guidelines

The emphasis in this outcome should be on producing basic and complex information in a context that is unfamiliar to the candidate. Centres may wish to complete an observation checklist to keep track of the candidate's development in the use of the three chosen software applications packages.

A combined assessment could be produced for Outcomes 2 and 3 in the form of a case study or project where information located for Outcome 3 is incorporated into documentation produced in Outcome 2.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Using Software Application Packages

### **Outcome 3**

Find information from suitable computer data sources

#### **Knowledge and/or skills**

- Computer data sources, including the Internet
- Searching for data
- Extracting data
- Presenting information in appropriate formats.

#### **Evidence requirements**

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can carry out 2 searches to extract and present relevant information from local or remote computer data sources. To do this the candidate will be required to:

- Select suitable computer data sources for the information search
- Plan how to find the information, taking account of efficiency in terms of time, cost, effective filtering and outcome
- Extract information that matches several search criteria. The criteria might be key terms, fields or file names. The information might be text, numbers, graphics, images, video, audio/music, data sets. The searches must be different from each other, e.g. searching 2 different sources, or searching the same source for two different forms of information
- Present the extracted information so that it is clear and helpful to others
- The evidence for this outcome must be in the form of a document, design, composition, model or presentation covering all the evidence requirements shown above.

#### **Assessment guidelines**

The emphasis in this outcome should be on searching for relevant information, producing and presenting the found information clearly. Selection/importation may involve tools such as screen grabbers, digital cameras or scanners

Centres may wish to complete an observation checklist to keep track of the candidate's development in the use of searching, selecting, extracting, producing and presenting information.

A combined assessment could be produced for Outcomes 2 and 3 as stated in the Assessment Guidelines for Outcome 2.

## **Administrative Information**

**Unit code:** D85F 34

**Unit title:** Using Software Applications Packages

**Superclass category:** CD

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## Higher National Unit specification: support notes

### Unit title: Using Software Applications Packages

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

### Guidance on the content and context for this Unit

This unit is aimed at enabling candidates to use a variety of software applications packages, including the Internet (electronic communications). It is also designed to enable candidates to use IT systems and applications effectively and responsibly to process a range of types of data. Candidates will learn how to integrate different types of data from more than one application in a piece of work and how to carry out searches in order to extract and present relevant information from electronic data sources.

Candidates should achieve the level of competence required of a regular user of information technology systems and software applications packages. Candidates will require individual access to a personal computer/workstation with an Internet connection. It is suggested that, wherever possible, commercially available current versions of industry standard software be used. The component parts of an integrated software package along with its operating environment can be used to achieve all outcomes. It is generally assumed that the environment for this unit will be, for example, Microsoft Windows and Microsoft Office or Lotus, or other vendor equivalents, however, this is not specified and the Outcome requirements are deliberately generic in nature.

The use of the Internet should be encouraged throughout the unit. Candidates should be encouraged to become familiar with the use of email, web browsers, search engines, channels, video conferencing, etc.

**Outcome 1** looks at the components of hardware, the functions of operating system tools and how these are used. Responsible use of data security measures (e.g. passwords, backups, virus protection) and taking care of the requirements of other users are also pre-eminent.

**Outcome 2** looks at using a range of software applications packages to process a range of data types. Centres can choose three or more packages (a minimum of three different packages must be used) from the whole range of applications packages available. The emphasis in this outcome should be on outputting information in appropriate formats to meet user requirements. Candidates should be able to integrate at least two different data types into a single product and to format the product so that the final output is clear and helpful to users.

An indication of the range of activities that candidates are expected to be able to carry out when using a variety of software application packages during the course of this unit is given below for some of the 'standard' applications that centres may use. This should not be taken

## Higher National Unit specification: support notes (cont)

### Unit title: Using Software Applications Packages

to be a prescriptive or indeed, an exhaustive list of requirements but should help to serve as a guide to the level of skills required. These include all the 'in-depth' features of software applications packages.

Please remember that candidates only need to demonstrate the use of **one** software application package **in-depth** in order to meet the requirements of the unit and of IT core skills at Intermediate 2. For the other two software applications packages they are only required to demonstrate the use of the basic features.

1. Selection and use of appropriate software applications packages.
2. Selection and use of document layout, page layout and format facilities, e.g. views, use of toolbars, rulers, guides, zoom, fonts, bullets and numbering, borders and shading, tabs, case, dropped capitals, columns, themes, backgrounds, styles, frames, colours and lines, alignment, templates, auto-format. Here, complex features would be themes, backgrounds, styles, frames, templates, auto-format, etc.
3. Use of on-line help and tutorial support facilities.
4. File handling, e.g. properties, naming conventions, saving, saving for use with web and other applications, retrieving, retrieving from web and other applications, copying, renaming, importing, exporting, emailing, attachments, routing and faxing.
5. Editing, e.g. undo, repeat, cut, copy, paste, paste special, select all, fill, clear, find, replace, go to, rename, links and objects.
6. Selection and use of insertions, e.g. headers and footers, page breaks, comments, footnotes, captions, numbering, symbols, date and time, index and tables, bookmarks, pictures, objects, hyperlinks, graphics, movies, sounds, tables, queries, forms and reports, functions, charts, comments, fields, records and files.
7. Use of 'tools', e.g. spelling and grammar checker, thesaurus, options, search and replace, auto-correction, sort, merge, customisation, security, protection, macros (simple), on-line facilities, send and receive, address books, synchronisation, message rules, messenger services, newsgroups and accounts.
8. Printing, e.g. printer selection, printer properties; printer set up, e.g. paper size, paper type, scaling, orientation, print preview; use of print preview facilities, e.g. zoom, multiple pages, ruler, scaling etc.

### Outcome 3

Candidates should select suitable computer data sources for information and extract suitable information from these computer data sources to meet relevant information requirements.

## Higher National Unit specification: support notes (cont)

**Unit title:** Using Software Applications Packages

### Guidance on the delivery and assessment of this Unit

This unit is designed to enable candidates to use IT systems effectively and responsibly to process a range of types of data. It is a general IT unit that should be suitable for all vocational areas. Early inclusion of this unit in an award is preferable as students should then be able to present work for other units using the knowledge and skills learned in this unit.

During the course of the unit candidates should have several opportunities to develop their practical skills and should then be assessed appropriately.

Assessment should be by a practical exercise that is observed by the assessor. An observation checklist would be sufficient evidence for Outcome 1 along with appropriate printouts, listings and screen dumps. For Outcomes 2 and 3, it is recommended that candidates be given a project or case study containing the tasks required to meet all the evidence requirements.

Candidates should have access to on-line help, tutorial support and/or suppliers' manuals as required.

Individual centres will need to plan Outcomes 2 and 3 to ensure that such resources as the ISP, CDs, telephone lines, modems, software applications packages and operating systems updates are available prior to commencement of the unit.

Centres may wish to teach this unit in the context of Microsoft Office User Specialist (MOUS) certification.

### Links to Vocational Qualifications

Depending on how this unit is taught by centres, it is considered possible to cover the knowledge and understanding components for the following VQ units. These units may also help to serve as a guide to centres as to the level of competence required by candidates.

VQ	VQ Unit No.	VQ Element No.	Outcome in this unit
Using IT Level 3	301	1, 2 and 3	1 & 2
Using IT Level 3	305	1, 2, 3 and 4	2
Using IT Level 3	306	1, 2, 3 and 4	2
Using IT Level 3	311	1, 2 and 3	2
Using IT Level 3	327	1, 2, 3 and 4	2
Managing IT for Teleworking Level 3	336	1, 2, 3 and 4	2

## **Higher National Unit specification: support notes (cont)**

**Unit title:** Using Software Applications Packages

### **Open learning**

This unit is well suited for delivery by both open and distance learning where the candidate has appropriate workplace, home based, or other facilities to carry out the practical assignments, and adequate supervision and support is available. This will require careful planning by the centre to ensure the sufficiency and authenticity of candidate evidence. It may be necessary for an "on-line support" tutor to be involved. In situations where the student completes work away from the centre, regular contact with tutors will be necessary. This may take the form of visits by the tutor to the student or vice versa. It is at the discretion of the centre as to whether assessments take place at the centre, workplace, or at home.

For information on normal open learning arrangements, please refer to the SQA guide *Assessment and Quality Assurance of Open and Distance Learning* (SQA, 2000).

### **Special needs**

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Special Assessment and Certification Arrangements for Candidates with Special Needs and Candidates for whom English is an Additional Language* (SQA, 2000).

## General information for candidates

### Unit title: Using Software Applications Packages

This unit is designed to enable you to use IT systems and applications effectively and responsibly to process a range of types of data. You should develop a broad knowledge of the theoretical concepts, principles, boundaries and scope of Information Technology Applications. By the end of the unit you should have learned how to use the basic features of at least two software applications packages and the complex features of one more package.

You will be required to use and develop a broad range of skills in a range of software applications packages (a minimum of 3), for example, word processor, spreadsheet, database, graphics, communications (ie internet, intranet, email, etc), audio/music, animation, video, multimedia, desktop publishing or other packages to meet specified requirements.

On successful completion of the unit you will be able to:

- 1 Operate a range of IT equipment paying due attention to other users
- 2 Use a range of software application packages effectively and responsibly
- 3 Find information from suitable computer data sources.

In **Outcome 1** you will learn about the components of hardware and how to use them, the functions of operating system tools and how these are used. Outcome 1 will be assessed by means of a practical exercise that will test your ability to carry out the required tasks under observation by your tutor/assessor.

In **Outcome 2** you will learn about how to use a range of software applications packages to process a range of types of data. You will learn about a minimum of 3 different software packages from the whole range of applications packages available. In this outcome you will learn how to output information in appropriate formats to meet user requirements. You will learn how to integrate data types (eg text, number, graphics, audio, video) into a single product and to format the product so that the final output is clear and helpful to users.

In **Outcome 3** you will learn how to use and access the Internet and use other electronic means of finding information. You will be required to find relevant information and produce it in a format suitable for meeting user requirements.

Outcomes 2 and 3 will be assessed by a project or case study that will test your ability to carry out the required tasks. You will need to produce appropriate printouts, listings, screen dumps or disk based evidence to demonstrate that you have carried out the requirements. Your tutor/assessor may also observe you carrying out some or all of these tasks.

You will be encouraged to access on-line help facilities, tutorial support and/or suppliers' manuals as required. More detailed guidance on the content, amount, style and quality required of your work will be made available to you during your progress through the unit.