



## Higher National Unit specification: general information

**Unit title:** Technical Support: Supporting Users — Software

**Unit code:** H184 34

**Superclass:** CB

**Publication date:** March 2012

**Source:** Scottish Qualifications Authority

**Version:** 01

### Unit purpose

This Unit contributes to the development of entry level technical support personnel. It achieves this using a hands-on approach with holistic and realistic assessment opportunities.

On completion of the Unit the candidate should be able to:

- 1 Communicate effectively with users, and others, who have differing levels of related expertise, in a problem solving/troubleshooting environment.
- 2 Troubleshoot computer software problems.
- 3 Configure and maintain software installations.

### Recommended prior knowledge and skills

Entry is at the discretion of the centre. It would be advantageous for candidates to have studied G9J8 45 National Progression Award in Computer Networks and Systems at SCQF level 5, or individual Unit F1KP 11: Computing: Install and Maintain computer Software prior to undertaking this Unit

### Credit points and level

1 Higher National Unit credit at SCQF level 7: (8 SCQF credit points at SCQF level 7\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

## **General information (cont)**

### **Core Skills**

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes of this Unit specification.

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

### **Context for delivery**

If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

## Higher National Unit specification: statement of standards

**Unit title:** Technical Support: Supporting Users — Software

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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.

### Outcome 1

Communicate effectively, with users and others, who have differing levels of related expertise, in a problem solving/troubleshooting environment.

#### Knowledge and/or Skills

- ◆ Communication skills
- ◆ Troubleshooting techniques

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ communicate with users to identify and demonstrate an appropriate troubleshooting technique, through a role play scenario, or by rectifying an actual fault, supported by the production of suitable and appropriate documentation, paper based or electronic.

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

**Unit title:** Technical Support: Supporting Users — Software

### Outcome 2

Troubleshoot computer software problems.

#### Knowledge and/or Skills

- ◆ Types and classification of software
- ◆ License legislation
- ◆ Installation of software
- ◆ Software housekeeping

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ describe/advise users about various types of software.
- ◆ describe/advise various licensing requirements of software.
- ◆ install software for given scenarios.
- ◆ advise users of effective housekeeping for software (Checklist).

### Outcome 3

Configure and maintain software installations.

#### Knowledge and/or Skills

- ◆ Configure and maintain system software
- ◆ Configure and maintain application software
- ◆ Configure software as a service.

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ configure and maintain software to given specifications (Checklist).

## Higher National Unit specification: support notes

### Unit title: Technical Support: Supporting Users — Software

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 intended to be practical in nature. The practicality of the Unit will provide opportunities for candidates to develop a range of skills required when working in the IT industry.

#### Outcome 1

##### Communication

This Outcome introduces the key soft skills required to effectively and efficiently obtain information from users. These skills are of extreme importance within the industry and it is strongly recommended that centres encourage as much interaction with persons unknown to the candidates as possible. Logistically this Outcome may prove challenging both to the centre and the candidate, however it is envisaged that this Outcome can be assessed at any point of the candidate's study of this Unit through observation accompanied by an appropriate checklist, or an audio and/or video recording..

Candidates should be encouraged to enter into discussion with users in order to gain trust and confidence and not to intimidate users with their line of questioning. Initially this can be achieved through peer role play in case studies. However in order to enhance confidence, real life projects are preferred when and where opportunities arise. Use of the Internet to research customer service is to be encouraged to stimulate classroom discussion on the appropriate way to communicate with users via telephone and the methods to employ in face to face meetings.

The bullet points below indicate areas of study and discussion. The list is not exhaustive and may be adjusted in line with industry and NOS requirements to maintain a relevant qualification. It is envisaged that ALL of the bullet points would be covered during the delivery of this Unit:

- ◆ Arrange an appropriate time to visit and be punctual
- ◆ Listen to user attentively and with respect
- ◆ Speak in plain English so that an ordinary user can follow and understand
- ◆ Avoid personal distractions
- ◆ Respect confidentiality
- ◆ Regularly update user if problem requires more than one visit
- ◆ Managing difficult users by:
  - adopting a Positive attitude
  - adopting a Non-judgemental/non-confrontational position
  - clarifying issues when necessary or requested

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

**Unit title:** Technical Support: Supporting Users — Software

### Troubleshooting

Troubleshooting techniques should be described and/or demonstrated to candidates. Candidates should also be actively encouraged to produce their own techniques for different problem scenarios. Documentation occurring from troubleshooting should be recorded for assessment purposes; this can be in the form of paper or electronic methods. It would be beneficial to candidates to gain exposure to helpdesk software and the techniques employed in using it

Candidates should be encouraged to identify and solve the user's problem first as often this does not involve repairing the system immediately. For example, an executive requires a printed document for a meeting, but the computer system will not start. The problem to immediately resolve is to provide the printed document, rather than repairing the computer.

The bullet points below indicate areas of study and discussion. Again, the list is not exhaustive and may be adjusted in line with industry and NOS requirements to maintain a relevant qualification. It is envisaged that ALL of the bullet points would be covered during the delivery of this Unit:

- ◆ Identify user problem
- ◆ Question user (who, what, when and how)
- ◆ Analyse user information obtained
- ◆ Identify a course of action
- ◆ Test solution (checklist)
- ◆ Document findings and results

### Outcome 2

Candidates should be able to:

- ◆ identify and describe commercial, shareware and freeware.
- ◆ identify and describe system and application software including mobile requirements.
- ◆ identify and resolve common software problems.
- ◆ describe the license requirements for a variety of software scenarios.
- ◆ state legal implications of software licences.
- ◆ automate software installation both system and application.
- ◆ inform users of effective/standard practices in relation to software.

### Outcome 3

Candidates should be able to:

- ◆ identify and resolve common user issues in relation to software.
- ◆ configure user settings individual/corporate using appropriate system facilities.
- ◆ resolve user system and application issues remotely.
- ◆ maintain mobile technology system and application software.
- ◆ describe SaaS/demonstrate SaaS applications.

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

**Unit title:** Technical Support: Supporting Users — Software

### Guidance on the delivery of this Unit

This Unit is intended to provide Candidates with realistic problem scenarios and to reduce the memory exercise for assessment. Candidates will develop a range of skills to enable them to cope with unfamiliar territory within the workplace.

Virtual software environments may provide more opportunities for candidates to gain experience of a larger variation of software. It is envisaged that candidates will undertake role play scenarios to build confidence and experience in resolving common software problems. The main emphasis of this Unit should be on candidate exposure to realistic working environments where efficient and effective work practices are required, while maintaining excellent customer relations. Outcome 1 can be cross-referenced with the Unit Technical Support: Supporting Users — Hardware for assessment purposes, however, time saved on assessment should be used to consolidate the development of soft skill practices.

Candidates should be encouraged to develop research skills in order to aid them with unfamiliar problems and circumstances within the workplace environment. These skills can be enhanced by researching and presenting information on licensing, classifications and good practice.

Candidates should also have the opportunity to automate software installation, as would be expected within a medium sized organisation, such as a college. A prepared virtual environment would enable centres to provide this opportunity/scenario with minimal resource implications.

Working to supplied specifications, candidates should be able to complete a task from inception to operation whilst understanding the processes undertaken. These specifications should include mobile technologies and the ability to support users from a remote location.

Candidate should also be made aware of evolving technologies and actively encouraged to investigate and discuss within the classroom.

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

**Unit title:** Technical Support: Supporting Users — Software

### Guidance on the assessment of this Unit

Holistic assessment is recommended for this Unit, using an approach based on a role play for communication and troubleshooting, following through to an actual repair, finalised by one set of documentation (electronic or manual), including appropriate disposal of equipment. Alternatively centres can create a variety of case studies for candidates to attempt.

To ensure that all Knowledge and/or Skills items have been covered, a multiple choice/response end of Unit test would be taken under closed-book, supervised conditions, covering the Knowledge and/or Skills items from Outcome 1, all of the Knowledge and/or Skills items within Outcome 2 and Outcome 3.

The number of questions for each Outcome should be as follows:

<b>Outcome</b>	<b>Number of questions</b>
1	10
2	20
3	10

### Assessment Guidelines

A role play scenario based on an actual problem, or case study, covering a relevant subset of skills from all Outcomes is envisaged. Each Outcome should be supported by observational checklists and/or video/audio evidence with a paper based/electronic documentation set. The emphasis of assessment should be focussed heavily on soft skills.

An end of Unit test of 40 multiple choice/multiple response questions, attempted under closed-book conditions is required. This test should be of one hour duration. A significantly different question set should be used each time candidates are assessed.



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

**Unit title:** Technical Support: Supporting Users — Software

### **Online and Distance Learning**

The practical nature of this Unit with role play and observational assessment methods does not support distance or online learning opportunities.

### **Opportunities for developing Core Skills**

There is no automatic Core Skill accreditation for this Unit; however it will actively encourage problem solving skills and communication skills at higher level.

### **Disabled candidates and/or those with additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)

## History of changes to Unit

Version	Description of change	Date

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## General information for candidates

### Unit title: Technical Support: Supporting Users — Software

The Unit is designed to provide you with the opportunity to acquire skills that will enable you to become efficient and effective in an entry level technical support role. It achieves this by providing you with the soft skills demanded by the industry. You will gain valuable experience through peer evaluation, in role play scenarios and real life customer service exposure. You will be introduced to standard techniques and methods of extracting information from users and others, with various levels of computing experience. You will be required to analyse this information in relation to resolving a problem, identify an appropriate troubleshooting strategy and provide an effective solution which is appropriately documented.

You will investigate the requirements for legal responsibilities in relation to all types of software. You will also investigate common software problems and their solutions, and use a selection of maintenance and diagnostic tools encountered for software. These tools will be discussed and analysed for best use scenarios.

The practical approach is continued with remote troubleshooting and problem resolution. You will be expected to research and identify relevant information and techniques to carry out tasks which are unfamiliar to you. Desktop and mobile technologies will be covered through a variety of resources such as video and/or demonstration for difficult to source technologies or emerging technologies.

The Unit is intended to be practical in nature and to provide you with many opportunities to refine your entire skill set in an entry level technical support role. It is designed to build on previous learning and experience but does not preclude direct entry at this level.

The rapid evolution of technology will be a constant challenge to technical support personnel. This Unit aims to help you gain skills to keep pace with this evolution.

To succeed in this Unit you must achieve a satisfactory level of performance in both practical and theory assessments.

On completion you will be able to:

- ◆ communicate effectively with users, and others, who have differing levels of related expertise.
- ◆ troubleshoot computer software problems efficiently and effectively.
- ◆ understand and describe software legislation.
- ◆ manually install software.
- ◆ automate software installation.
- ◆ configure and maintain software installations.