

Higher National Unit Specification

General information for centres

Unit title: Health and Safety in the Building Services Industry

Unit code: DP17 34

Unit purpose: This core Unit will introduce the candidate to a wide range of health and safety issues applicable to the Building Services Industry.

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

- ◆ Define the main **health and safety legislation** in the building services sector
- ◆ Explain the main requirements of an **effective health and safety policy**.
- ◆ Demonstrate an understanding of **hazard and risk identification** in relation to the design and construction of an appropriate installation.
- ◆ Undertake a **risk assessment** appropriate to the work area of the candidate.

Credit points and level: 1 HN 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.*

Recommended prior knowledge and skills: An appropriate safety unit at NQ level and a basic understanding and knowledge of building services engineering science and technology would be an advantage but not a pre-requisite. Such understanding and knowledge may be evidenced by the possession of a National Certificate in Building Services Engineering or a related subject. The unit includes the basic principles necessary to allow candidates possessing other qualifications or experience to succeed in this unit.

Core skills: There may be opportunities to gather evidence towards core skills in this Unit, although there is no automatic certification of core skills or core skills components.

Context for delivery: This unit was developed for the HNC in Building Services Engineering. If this Unit is delivered as part of another group award (s), it is recommended that it should be taught and assessed within the context of the group award (s) to which it contributes. It may also be delivered as a free standing unit and for Continuing Professional Development (CPD) purposes.

Assessment: It is possible to assess candidates either on an individual Outcome basis or combinations of Outcomes. The assessment paper/s should be composed of an appropriate balance of short answer, restricted response and structured questions. Assessment should be conducted under supervised, controlled conditions. It should be noted that candidates must achieve all the minimum evidence specified for each Outcome in order to pass this Unit.

General information for centres (cont)

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.

An exemplar instrument of assessment and marking guidelines has been produced to provide examples of evidence required to demonstrate achievement of the aims of this unit.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, knowledge and/or skills, and evidence requirements are mandatory.

(If you think holistic assessment is the best assessment strategy for the Unit and you wish to state *Knowledge and/or Skills* and *Evidence requirements* for the Unit as a whole, please add the following statement here: ‘Please refer to *Knowledge and/or skills for the Unit* and *Evidence requirements for the Unit* after the Outcomes.’)

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

Define the main health and safety legislation in the building services sector

Knowledge and/or skills

- ◆ Health and Safety at Work Act 1974 applicable to the building services industry.
- ◆ Construction Design and Management (CDM) Regulations.
- ◆ Relevant Codes of Practice.
- ◆ Management of Health and Safety at Work Regulations.
- ◆ Implications of non compliance with the relevant legislation applicable to the building services industry.

Evidence requirements

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

- ◆ specify the legal responsibilities of the parties involved in a building services environment
- ◆ explain the main provisions of the Management of Health and Safety at Work and CDM Regulations in summary form
- ◆ understand the penalties for non compliance with the Health and Safety at Work Act

Evidence for the knowledge and /or skills for this Outcome will be provided on a sample basis. In any assessment of this Outcome a minimum of **four out of five** knowledge and/or skills items should be sampled. In order to ensure that candidates will not be able to foresee what items they will be questioned on, a different sample of knowledge/skill items is required each time the Outcome is assessed. Candidates must provide a satisfactory response to all four items.

Assessment should be conducted under closed book conditions and as such candidates should not be allowed to bring textbooks, handouts or notes to the assessment.

Higher National Unit specification: statement of standards (cont)

Unit title: Health and Safety in the Building Services Industry

Assessment guidelines

Questions used to elicit candidate evidence should take the form of an appropriate balance of short answer, restricted response and structured questions.

Outcome 2

Explain the main elements of an effective **health and safety policy**

Knowledge and/or skills

- ◆ Implementation of health and safety policy
- ◆ Contents of Health and Safety Policy to ensure an environment is of a healthy and safe nature
- ◆ Roles of personnel involved in Health and Safety of company
- ◆ Accident and risk reporting measures
- ◆ Methods adopted to ensure efficiency of health and safety procedures
- ◆ Training requirements of personnel to fulfil health and safety obligations
- ◆ Methods of recording health and safety data
- ◆ Methods of communication used to convey necessary data to the workforce

Evidence requirements

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

- ◆ explain the function of a Health and Safety Policy in promoting a healthy and safe working environment
- ◆ identify the roles and functions of the various personnel involved in the implementation and operation of a Health and Safety Policy
- ◆ explain methods of communication, recording and storage of data generated by the operation of a Health and Safety Policy

Evidence for the knowledge and /or skills for this Outcome will be provided on a sample basis. In any assessment of this Outcome a minimum of **five out of eight** knowledge and/or skills items should be sampled. In order to ensure that candidates will not be able to foresee what items they will be questioned on, a different sample of knowledge/skill items is required each time the Outcome is assessed. Candidates must provide a satisfactory response to all five items.

Assessment guidelines

Assessment should be conducted through an open book policy using short answer, case study or structured type questions.

Assessment of this Outcome might be combined with that of Outcomes 3 and 4.

Higher National Unit specification: statement of standards (cont)

Unit title: Health and Safety in the Building Services Industry

Outcome 3

Demonstrate an understanding of **hazard and risk** identification in relation to the design and construction of an appropriate installation

Knowledge and/or skills

- ◆ Methods of hazard identification including visual observation
- ◆ Examine records and interpret data from these records
- ◆ Methods of hazard identification appropriate to the workplace
- ◆ Hazards recording to meet legal requirements
- ◆ Hazards which cannot be eliminated
- ◆ Areas where risk assessment should be undertaken

Evidence requirements

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

- ◆ Select a method of hazard identification using data supplied
- ◆ Identify hazards by observing a construction process
- ◆ Record the hazards relating to the process in a suitable format
- ◆ Identify hazards that will require the undertaking of a risk assessment

Evidence for the knowledge and /or skills for this Outcome will be provided on a sample basis. In any assessment of this Outcome a minimum of **four out of six** knowledge and/or skills items should be sampled. In order to ensure that candidates will not be able to foresee what items they will be questioned on, a different sample of knowledge/skill items is required each time the Outcome is assessed. Candidates must provide a satisfactory response to all four items.

Assessment guidelines

Questions used to elicit candidate evidence should take the form of an appropriate balance of short answer, restricted response and structured questions. Assessment should be conducted through an open book policy using a case study involving a simulated or real hazard environment.

Assessment of this Outcome might be combined with that of Outcomes 2 and 4.

Outcome 4

Undertake **risk assessment** appropriate to the work area of the candidate

Knowledge and/or skills

- ◆ Risk assessing where specialist knowledge is required
- ◆ Minimise hazards which cannot be eliminated
- ◆ Control of Substances Hazardous to Health
- ◆ Manual Handling Regulations

Higher National Unit specification: statement of standards (cont)

Unit title: Health and Safety in the Building Services Industry

- ◆ Risk rating systems
- ◆ Personal Protective Equipment

Evidence requirements

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

- ◆ assess the likely harm relative to the identified workplace hazards.
- ◆ evaluate the severity and likelihood ratings for identified work processes.
- ◆ select and formulate appropriate control measures.
- ◆ produce a risk assessment in an appropriate format

Evidence for the knowledge and /or skills for this Outcome will be provided on a sample basis. In any assessment of this Outcome a minimum of **four out of six** knowledge and/or skills items should be sampled. In order to ensure that candidates will not be able to foresee what items they will be questioned on, a different sample of knowledge/skill items is required each time the Outcome is assessed. Candidates must provide a satisfactory response to all four items.

Assessment Guidelines

Questions used to elicit candidate evidence should take the form of an appropriate balance of short answer, restricted response and structured questions. Assessment should be conducted through an open book policy using a case study involving a simulated or real hazard environment and the production of a completed Risk Assessment.

Assessment of this Outcome might be combined with that of Outcomes 2 and 3.

Administrative Information

Unit code:	DP17 34
Unit title:	Health and Safety in the Building Services Industry
Superclass category:	TE
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Higher National Unit specification: support notes

Unit title: Health and Safety in the Building Services Industry

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 has been written in order to allow candidates to develop knowledge and understanding in the following areas:-

- ◆ The main health and safety legislation in the building services industry
- ◆ The main requirements of an effective health and safety policy
- ◆ An understanding of hazard and risk identification in relation to the design and construction of an appropriate installation
- ◆ Risk assessment appropriate to the work area of the candidate
- ◆ Changes in legislation

Recommended time allocations to each outcome are given as guidance towards the depth of treatment which might be applied to each topic. This guidance has been used in the design of the assessment exemplar material provided with the unit.

1. Main health, safety and welfare legislation (8 hours)

Health and Safety at Work Act 1974: legislation as it applies to construction work, including the Construction Design and Management (CDM) Regulations, status and role of Codes of Practice and guidance notes, legal duties for health, safety and welfare in the workplace, responsibility for risk and other assessment as required by the Management of Health and Safety at Work Regulations, penalties for non compliance with legislation.

2 Policy and organisational arrangements (8 hours)

Health and Safety Policy: the associated arrangements required to implement policy, setting objectives to ensure a healthy and safe workplace, development of procedures which meet legal requirements, identification of individuals to whom accidents and safety risks must be reported, measures used to check effectiveness of health and safety procedures, identification of training needs to meet health and safety objectives, statutory requirements for inspection of plant and equipment, recording of health and safety data to meet legal requirements, methods of communicating procedures to all in the workplace.

3 Hazard and risk identification (5 hours)

Hazards and risks: methods of hazard identification including direct observation, examining records or conducting interviews, selection of a method to identify hazards which is appropriate to the workplace, identification of hazards which might cause serious harm, recording hazards in a way which meets legal requirements, identification of hazards which cannot be eliminated, define clearly why and where risks assessment will be carried out.

Higher National Unit specification: support notes (cont)

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4 Risk assessment and control measures (11 hours)

Risk assessment: identify those aspects of risk assessment where specialist knowledge is required, identify possible outcomes from hazards that cannot be eliminated, consider procedures which might minimise hazards, assess the effects of hazardous substances used, assess the need for manual handling assessments, assess the likely severity and likelihood of injury, use of risk rating systems, personal protective equipment as a control measure, produce a risk assessment in an appropriate format.

Guidance on the delivery and assessment of this Unit

Opportunities for developing Core Skills

As this unit is one of a set of core units it is advised that delivery of the unit should be commenced in year 1 of the Higher National Award in Building Services. The unit can be delivered as a stand alone unit but is more likely to be effective if the content is reinforced during the delivery of all other units in the programme.

Where available, evidence from the workplace can also be incorporated to enhance the learning outcomes, provided that this evidence is appropriate and authenticated as the student's own work.

Evidence for all Outcomes should be generated through assessment undertaken in controlled, supervised conditions.

It is recommended that evidence for learning outcomes is achieved through well-planned course work, assignments and projects. Assessment may be formative and summative and both may feature as part of the process. Although assessments must be focused on the individual achievement of each student, group work and role-play activities may contribute to the assessment. Integrative assignments and project work will help to link this unit with other related units.

The volume of evidence required for each assessment should take into account the overall number of assessments being contemplated within this unit and the design of the overall teaching programme. In designing the assessment instrument/s, opportunities should be taken to generate appropriate evidence to contribute to the assessment of Common Skills units.

Outcomes 2, 3 and 4 are particularly suitable for assessment by use of Case Studies.

Open learning

This unit could be delivered by distance learning which may incorporate a degree of on-line support. Assessment however, should be delivered in the same manner as prescribed in the previous Outcomes

Higher National Unit specification: support notes (cont)

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Candidates with additional support needs

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on the SQA website www.sqa.org.uk

General information for candidates

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- ◆ Demonstrate an understanding of **hazard and risk identification** in relation to the design and construction of an appropriate installation.
- ◆ Undertake a **risk assessment** appropriate to the work area of the candidate.

Evidence that you can satisfy the knowledge and skill elements of this unit will be obtained by assessment in controlled, supervised conditions involving short answer questions or case study work. You will not be allowed to bring textbooks, handouts or notes to some assessments, in others you will be allowed access to your books and notes.