



## **National Unit specification: general information**

**Unit title:** Building Services Engineering: Employability Skills  
(SCQF level 4)

**Unit code:** FT89 10

**Superclass:** TH

**Publication date:** September 2011

**Source:** Scottish Qualifications Authority

**Version:** 02

## **Summary**

This is a mandatory Unit of the Skills for Work Building Services Engineering award and is suitable for candidates with no previous engineering, technical or employment experience. Candidates will develop work practices and attitudes that enhance their employability in the context of the building services engineering (BSE) sector. Candidates will also have an opportunity to review the skills they have developed.

## **Outcomes**

- 1 Demonstrate work practices which enhance employability in the context of building services engineering.
- 2 Demonstrate behaviours which enhance employability in the context of building services engineering.
- 3 Use project drawings to record and check simple measurements.
- 4 Review and evaluate own skills developed in practical contexts.

## **Recommended entry**

Entry is at the discretion of the centre.

## **Credit points and level**

0.5 National Unit credit at SCQF level 4 (3 SCQF credit points at SCQF level 4)

## **General information (cont)**

**Unit title:** Building Services Engineering: Employability Skills  
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### **Core Skills**

Achievement of this Unit gives automatic certification of the following Core Skills component:

- ◆ Critical Thinking at SCQF level 3
- ◆ Working Co-operatively with Others at SCQF level 3

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit specification.

## **National Unit specification: statement of standards**

**Unit title:** Building Services Engineering: Employability Skills  
(SCQF level 4)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

### **OUTCOME 1**

Demonstrate work practices which enhance employability in the context of building services engineering.

#### **Performance Criteria**

- (a) Undertake necessary planning and preparation prior to practical work.
- (b) Work co-operatively with others on specified tasks.
- (c) Maintain tidy work areas in accordance with health and safety requirements.
- (d) Check own practical work in accordance with prescribed schedule and standards.

### **OUTCOME 2**

Demonstrate behaviours which enhance employability in the context of building services engineering

#### **Performance Criteria**

- (a) Demonstrate positive attitudes to learning during practical exercises.
- (b) Show a willingness to follow instructions from person responsible.
- (c) Respond positively to advice and feedback on performance.

### **OUTCOME 3**

Use project drawings to record and check simple measurements.

#### **Performance Criteria**

- (a) Accurately measure from a scaled project drawing.
- (b) Scale up the measurements taken to give full size values.
- (c) Check calculated full size values against actual recorded measurements.

### **OUTCOME 4**

Review and evaluate own skills developed in practical contexts.

#### **Performance Criteria**

- (a) Identify own strengths and weaknesses.
- (b) Identify learning points for self.
- (c) Identify action points for improvement for self.

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

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### **Evidence Requirements for this Unit**

Evidence is required to demonstrate that the candidate has achieved all Outcomes and Performance Criteria.

Performance evidence should be produced for Outcomes 1–4 and should be integrated across all other SfW Units.

Written and/or oral evidence should also be produced for Outcomes 3 and 4 to demonstrate that the candidate has achieved all the Outcomes and Performance Criteria. The evidence should be produced in the form of open-book supervised and controlled conditions.

#### **Outcome 1: Performance Evidence**

Candidates must demonstrate, for two given practical exercises, that they work co-operatively with others to carry out all necessary planning and preparation, including identification of roles, for the exercises, whilst maintaining an appropriately tidy work area and checking their own progress against the schedules and standards for those two tasks.

#### **Outcome 2: Performance Evidence**

Candidates must demonstrate, for two given practical exercises, positive behaviours which must include a willingness to seek, accept and follow instructions from the person responsible, and to respond to those instructions in a positive manner for the duration of those two exercises.

#### **Outcome 3: Performance Evidence (supported by written and/or oral evidence)**

Candidates must provide evidence, for two given exercises, that they can understand a scaled project drawing and take measurements accurately from it. Candidates must also provide evidence, for the same two given exercises, that they can scale up those measurements taken to give accurate full size values and then check those full size values against the actual recorded measurements.

#### **Outcome 4: Performance Evidence (supported by written and/or oral evidence)**

Candidates must provide evidence, for two given exercises, that they are capable of identifying their own strengths and weaknesses and then use that to identify their own learning points and actions to be taken for improvement.

## National Unit specification: support notes

**Unit title:** Building Services Engineering: Employability Skills  
(SCQF level 4)

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 20 hours.

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

The content and context of this Unit is at a basic, introductory level. The main purpose of the Unit is to prepare candidates for employment in the building services engineering industry. To this end the Unit focuses on encouraging candidates to develop the correct work practices and attitudes for employment such as good time-keeping and attendance, working co-operatively with others, willingness to learn, checking the quality of own work, and maintaining tidy work space. Candidates will be provided with an opportunity to review how well they have progressed in developing these work practices and attitudes by comparing their own evaluation with that of their assessors. Candidates will also be encouraged to develop skills in interpretation of drawings and taking and recording measurements, skills that are common to all parts of the building services engineering industry.

### Guidance on learning and teaching approaches for this Unit

Candidates should be given opportunities to work towards Outcomes in an integrated way whenever possible.

Practical activities could be teacher/lecturer-led in that all equipment, techniques and processes be explained, demonstrated and thoroughly understood before the candidate commences the Unit. Demonstrations should be clear, logically sequenced and reflect current safe working practices to ensure candidate understanding.

### Opportunities for developing Core Skills

There are opportunities to develop aspects of the Core Skill *Problem Solving* in this Unit. Candidates are required to review and evaluate their own skills.

Throughout this Unit there may be opportunities for candidates to develop the Core Skills of *Communication*, *Problem Solving*, *Numeracy* and *Working with Others* at SCQF level 4. If the assessment is carried out using Performance Evidence, *Communication*, *Problem Solving* and *Working with Others* could be developed in Outcomes 1 and 2. *Communication*, *Numeracy* and *Problem Solving* could be developed in Outcome 3.

## National Unit specification: support notes (cont)

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### Guidance on approaches to assessment for this Unit

An integrated approach to assessment across the outcomes in this Unit is suggested. If this is being delivered as part of the Skills for Work award the use of holistic assessment with other applicable Units is suggested. In addition, the project-based approach may be used to gather evidence of candidate achievement this would allow integration across a number of Units. Centres may also wish to develop the employability skills of the candidates through role-play techniques where appropriate.

A suitable instrument of assessment covering all Performance Criteria could be a practical exercise, undertaken in supervised and controlled conditions, where candidate achievement is recorded by means of an observation checklist completed by the teacher/lecturer.

Performance evidence, supported by candidate review sheets and assessor observation checklists are required to show that all Outcomes and Performance Criteria have been achieved.

Candidates will demonstrate the appropriate working practices and attitudes in practical contexts. They will then review and evaluate their own performance on candidate review sheets and plan for improvement. Candidates will also demonstrate basic skills in interpreting drawings and undertake practical measurement tasks. The evidence required will be:

- ◆ a minimum of two candidate review sheets, signed by the assessor, relating to a minimum of two practical activities
- ◆ an assessor observation checklist confirming that the candidate has successfully completed the practical measuring tasks as specified

### Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communication technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

### 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
02	Evidence Requirements for Outcome 1:Performance Evidence amended to include “identification of roles”	29/09/2011
02	Core Skills Components Critical Thinking and Working Co-operatively with Others at SCQF level 3 embedded.	29/09/2011

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