

# SQA Advanced Unit Specification

## General information

**Unit title:** Health and Safety in Construction (SCQF level 7)

**Unit code:** J53J 47

**Superclass:** TE

**Publication date:** January 2021

**Source:** Scottish Qualifications Authority

**Version:** 01

## Unit purpose

This unit is designed to provide the learner with a fundamental understanding of current health and safety legislative and regulatory requirements for construction together with approved codes of practice. Further, based on knowledge provided about the cost implications of accidents, learner will prepare risk analyses and appropriate method statements for works.

This is a mandatory unit which is aimed at learners taking the SQA Advanced Certificate or Diploma in Construction Management. However, because of its relatively broad nature, it may be suitable as an optional unit for learners taking any of the SQA Advanced Certificate/ Diploma awards in the built environment disciplines, including Building Surveying and Architectural Technology.

The skills and knowledge acquired in this unit will be useful for learners who progress into the construction industry in the fields of architecture and design, quantity surveying, construction management and various engineering disciplines.

## Outcomes

On successful completion of the unit, the learner will be able to:

- 1 explain the implications of the current Health and Safety at Work Regulations, Standards and Guidance Notes in the construction industry
- 2 explain the benefits of behavioural health and safety and promoting mental wellbeing in the construction industry
- 3 prepare risk analyses and realistic method statements for works

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### **Credit points and level**

1 SQA unit credit at SCQF level 7: (8 SCQF credit points at SCQF level 7)

### **Recommended entry to the unit**

Entry is at the discretion of the centre.

It would be an advantage for learners to have a basic understanding and knowledge of construction technology and construction methods. This may be evidenced by the possession of NQ or SQA Advanced units in construction technology. The unit includes the basic knowledge to permit learners possessing other qualifications or experience to succeed in this unit.

### **Core Skills**

Opportunities to develop aspects of Core Skills are highlighted in the **support notes section** for 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.

### **Equality and inclusion**

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods, or considering alternative evidence.

Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements).

### Statement of standards

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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.

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. Learners 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

Explain the implications of the current Health and Safety at Work Regulations, Standards and Guidance Notes in the construction industry.

##### Knowledge and/or skills

- ◆ enabling powers of Health and Safety at Work Act
- ◆ concepts of criminal and civil law as applied to safety
- ◆ analysis of current industry trends
- ◆ duties of employers and employees
- ◆ provisions of the Management of the Health and Safety at Work Regulations, Construction Design and Management Regulations (CDM), Construction (Health, Safety and Welfare) Regulations
- ◆ legality of Guidance Notes (Approved Codes of Practice)

#### Outcome 2

Explain the benefits of behavioural health and safety and promoting mental wellbeing in the construction industry.

##### Knowledge and/or skills

- ◆ methods of accident reporting to promote improvement
- ◆ behavioural safety statistics and techniques
- ◆ costs of construction accidents
- ◆ mental health involvement in health and safety

#### Outcome 3

Prepare risk analyses and realistic method statements for works.

##### Knowledge and/or skills

- ◆ construction health and safety common risks
- ◆ risk assessment requirements
- ◆ method statement requirements

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### Evidence requirements for this unit

All assessments in this unit should be carried out in controlled, supervised conditions. All assessments should be open-book with learners permitted to refer to the following:

- ◆ for Outcome 1 learners should be permitted access to personal class notes or tutorial tasks notes only
- ◆ for Outcome 2 learners should be permitted access to personal class notes, handouts, textbooks and the internet
- ◆ for Outcome 3 learners should be permitted access to personal class notes, handouts, textbooks and the internet

It is recommended that assessment is carried out for each outcome separately after the learning for each outcome — and in numerical order. However, the order in which the outcomes are delivered and assessed is not vital.

Where evidence for outcomes is gathered on a sample basis the whole of the knowledge/skills lists must be taught and available for assessment. Learners should not know in advance which of the items in the lists will be sampled in any one assessment event.

It is possible that assessment components for this unit might be integrated into other appropriate units. This might involve the learners' applying the learning outcomes within the unit, by responding to each outcome on within an integrated/combined project-based scenario. Therefore, use of online assessment, electronic portfolios of evidence and presentations would be most appropriate — although hard copy evidence is equally valid.

Also this allows the possible integration of the assessment evidence into a single portfolio of learner work thus providing an integrated approach to assessment which closely mirrors workplace practice. If an integrated approach is used to gather evidence, mapping matrixes and checklists should be used to record learner progress as a formative record of achievement prior to the substantive submission of all completed solutions for the corresponding outcomes.

Learners will need to provide evidence to demonstrate their knowledge and/or skills across all outcomes by showing that they can:

**For Outcome 1:** Explain the implications of the current Health and Safety at Work Regulations, Standards and Guidance Notes in the construction industry

Learners should be introduced to the Health and Safety at Work Act, CDM Regulations as well as any other associated legislation. This will allow learners to grasp the duties of all parties across the construction industry. Learners should have access to current health and safety accident statistics and identify high risk areas.

Evidence may be generated through assessment in controlled, supervised conditions. Assessment should be conducted under open-book conditions with supervised internet access where possible. Learners should be allowed to bring textbooks and notes to the assessment. Questions used to elicit evidence should take the form of an appropriate balance of short answer, restricted response and structured questions.

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The assessment might be combined with Outcome 2 to form a single assessment paper but assess outcomes separately.

If an assessment paper is used, the assessment paper should include marks for each task and sub-task and should carry a cut-off score of 60% for the assessment overall.

The assessment for Outcome 1 should take no longer than 60 minutes but need not be timed. The assessment must be taken in one sitting and not carried over to another assessment event.

**For Outcome 2:** Explain the benefits of behavioural health and safety and promoting mental wellbeing in the construction industry.

Learners should be introduced to accident reporting techniques such as near misses, and aspects that fall within Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). Behavioural safety statistics and approaches to improving health and safety should also be investigated.

Learners will investigate costs of accidents. This should include financial cost such as lost time, fines as well as emotional loss. This can lead into the impact of mental wellbeing and the costs of time from work and proactive approaches that can be implemented to tackle growing mental health issues.

Evidence should be generated through assessment in controlled, supervised conditions. Assessment should be conducted under open-book conditions and learners should be allowed to bring textbooks and notes to the assessment.

If an assessment paper is used, the assessment paper should include marks for each task and sub-task and should carry a cut-off score of 60% for the assessment overall.

The assessment for Outcome 2 should take no longer than 60 minutes but need not be timed. The assessment must be taken in one sitting and not carried over to another assessment event.

**For Outcome 3:** Prepare risk analyses and realistic method statements for works.

Learners will build on accident knowledge from Outcome 1 and gain knowledge in how to identify hazards. Learners will then progress in risk assessment techniques to look at severity and likelihood of hazard occurring.

Learners will develop knowledge of possible control measures that can be applied to reduce the risk and how this affects the residual risk.

Safe systems of work such as method statements must be introduced and an explanation of the importance of communication of risks and controls to the workforce.

If an assessment paper is used, the assessment paper should include marks for each task and sub-task and should carry a cut-off score of 60% for the assessment overall.

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The assessment for Outcome 3 should take no longer than 90 minutes but need not be timed. The assessment must be taken in one sitting and not carried over to another assessment event.

### Support notes

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Unit support notes are offered as guidance and 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

##### Outcome 1

Legislation should cover: The Health and Safety at Work Act as an enabling Act, case law, criminal law, civil law, the duties of employers and employees. Health and Safety Executive.

Regulations should cover: Management of Health and Safety at Work Regulations, Construction (Design and Management) Regulations, Construction (Health Safety and Welfare) Regulations.

Guidance Notes/Approved Codes of Practice (ACOP): Usefulness as practical guidance and advice, different legal status of guidance and advice.

##### Outcome 2

Accident reporting: Near misses, toolbox talks, improvement notice, prohibition notice, behavioural discussions, accident trends, improvement cards.

Costs of accidents: Costs to employer both financially, reputation, lost time, cost to taxpayer.

Mental Health: Causes of mental health issues, awareness, effect of mental illness to others.

##### Outcome 3

Risk Analysis and Method Statements.

Hazards: falling from height, being struck by moving vehicles, electrocution, musculoskeletal injury, inhaling toxic fumes and dust.

Risk Assessment requirements: Management of Health and Safety at Work Regulations, Construction (Design and Management) Regulations, Construction (Health, Safety and Welfare) regulations. The five steps to risk assessment. Identification of potential for harm, Assess severity of harm and likelihood of occurrence, methods for control or avoidance, residual risk.

#### Guidance on approaches to the delivery of this unit

The unit is academic in nature but delivery can be by means of tasks, site visits, presentations, tutorials, discussions and quizzes. Much of the learning can be learner-centred.

It might be advisable for learners in this unit to start with Outcome 1 and the legislative requirements in the construction industry.

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There are lots of videos from the Health and Safety Executive (HSE), showing statistics and best practice as well as videos of accidents and survivors from accidents. Site visits are very visual and memorable for learners. A visit to a construction site to look at how the risks are controlled would be a memorable experience and will reinforce and complement video watching and reading tasks.

Behavioural safety has been an important trend in the construction industry and an explanation of why we hold behavioural discussions to challenge bad habits. A talk from a local health and safety advisor could be introduced.

Learners can be asked to highlight potential risks and control measures and give personal or group presentations about their findings to the rest of the class. This will both structure their thinking and bolster their store of notes that can be used at the assessment event. In fact, with care and planning of the supervision, there is no reason why the assessment evidence cannot take the form of an individual presentation — as long as it is the learner's own work and satisfies the evidence requirements.

Throughout this process learners should be reminded of the fact that they are only permitted to bring personal notes into the assessment. Consequently, they should be taking notes throughout any learning activity for future use.

The delivery of every aspect of this outcome can be supported by tutorial discussions and formative assessment — maybe in the form of mock tests or quizzes.

### Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

This unit lends itself to written evidence for legislation and other aspects of learning Outcome 1 and written and/or oral evidence for the other outcomes. The use of electronic portfolios of evidence can be encouraged, although hard copy evidence is equally valid.

All assessments in this unit should be carried out in controlled, supervised conditions. All assessments should be open-book with learners permitted to refer to the following:

- ◆ for Outcome 1 learners should be permitted access to personal class notes or tutorial tasks notes only
- ◆ for Outcome 2 learners should be permitted access to personal class notes, handouts, textbooks and the internet
- ◆ for Outcome 3 learners should be permitted access to personal class notes, handouts, textbooks and the internet

It is recommended that assessment is carried out for each outcome separately after the learning for each outcome — and in numerical order. However, the order in which the outcomes are delivered and assessed is not vital.

**For Outcome 1:** Explain the implications of the current Health and Safety at Work Regulations, Standards and Guidance Notes in the construction industry.



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This assessment would suit written evidence, to show understanding of legislation and common accident themes across the industry. Roles and responsibilities covered by legislation should be assessed as well as common trends of accidents within the construction industry.

The assessment paper should include marks for each task and sub-task and should carry a cut-off score of 60% for the assessment overall.

The assessment for Outcome 1 should take no longer than 60 minutes but need not be timed. The assessment must be taken in one sitting and not carried over to another assessment event.

**For Outcome 2:** Explain the benefits of behavioural health and safety and promoting mental wellbeing in the construction industry.

Assessment may take the form of a case study-based coursework where a scenario requires suggestions to reduce actions on construction sites and mitigate the cost of these accidents. Alternatively, the learner may — individually and under supervision — produce a presentation covering all of the above aspects from their notes.

The assessment paper should include marks for each task and sub-task and should carry a cut-off score of 60% for the assessment overall.

The assessment for Outcome 2 should take no longer than 60 minutes but need not be timed. The assessment must be taken in one sitting and not carried over to another assessment event.

**For Outcome 3:** Prepare risk analyses and realistic method statements for works

The assessment for this outcome could be by means of an assignment which will require learners to evaluate case studies and apply theoretical knowledge from class lectures/tutorials.

Assessment for this outcome may take the form of a written coursework constructing risk assessments and methods statements for construction activities.

The assessment paper should include marks for each task and sub-task and should carry a cut-off score of 60% for the assessment overall.

The assessment for Outcome 3 should take no longer than 90 minutes but need not be timed. The assessment must be taken in one sitting and not carried over to another assessment event.

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. In designing the assessment instrument(s),

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opportunities should be taken to generate appropriate evidence to contribute to the assessment of Core Skills units. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

All assessments in this unit should be open-book in nature, under controlled, and supervised condition within an appropriate assessment environment, carried out outcome by outcome, with learners permitted to refer to class notes, handouts, textbooks and the internet. It is recommended that assessment is carried out for each outcome separately after the learning for each outcome — and in numerical order. However, the order in which the outcomes are delivered and assessed is not vital. Assessment in this unit should therefore be carried out by means of separate tasks: each task will cover each of the individual outcomes in order.

This unit requires written evidence and /or oral evidence. It is recommended that evidence for learning outcomes is achieved through well-planned course work, assignments and projects. While assessments, must be focused on the individual achievement of each learner, group work and role-play activities may contribute to the assessment.

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 SQA Advanced teaching programme. Therefore, it is possible that assessment components for this unit might be integrated into other appropriate units. This might involve the learners' applying the learning outcomes within the unit, by responding to each outcome on within an integrated/combined project-based scenario. Therefore, use of online assessment, electronic portfolios of evidence and presentations would be most appropriate — although hard copy evidence is equally valid.

Also this allows the possible integration of the assessment evidence into a single portfolio of learner work thus providing an integrated approach to assessment which closely mirrors workplace practice. Where available, relevant evidence from the workplace can also be incorporated to enhance the learning outcomes, provided that this evidence is appropriate and authenticated as the learner's own work. If an integrated approach is used to gather evidence, mapping matrixes and checklists should be used to record learner progress as a formative record of achievement prior to the substantive submission of all completed solutions for the corresponding outcomes.

### **Open-book Controlled Supervised Assessments**

For any SQA Advanced unit assessment within the Construction Technician Suite of Qualifications stipulate 'open-book assessment', SQA is comfortable that these can now be assessed under the following conditions:

- 1 Integrated combined assessment model, within the context of 'project-based' learning and assessment**, ie carried out holistically with the learning and assessment of other relevant SQA Advanced units based on a centre-devised project.

Documented evidence of these processes needs to be retained for verification purposes If an integrated approach is used to gather evidence, mapping matrixes and checklists should be used to record learner progress as a formative record of achievement prior to the substantive submission of all completed solutions for the corresponding outcomes.

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### 2 Assessed individually: As an online timed assessment, require to adhere to the following criteria:

- ◆ Long answer questions/responses
- ◆ Plagiarism detection engine/tool
- ◆ Large question bank to allow randomised question generation to individual learners, in order to create unique exams for each learner

Documented evidence of these processes needs to be retained for verification purposes. If assessed individually: as an online timed assessment to gather evidence, mapping matrixes and checklists should be used to record learner progress as a formative record of achievement prior to the substantive submission of all completed solutions for the corresponding outcomes.

### Opportunities for 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, such as e-testing or the use of e-portfolios or social software. Centres wishing to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment — as specified in the evidence requirements — are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at: [www.sqa.org.uk/e-assessment](http://www.sqa.org.uk/e-assessment).

### Opportunities for developing Core and other essential skills

Opportunities for developing Core Skills come in the form of:

**Reading** through legislation and suggested reading material.

**Writing** within assessment for all outcomes especially assignment based.

**Numeracy** when assessing risks using matrices and providing charts.

**Information and Communication Technology (ICT)** when producing assignment.

**Problems Solving** when assessing case study.

## History of changes to unit

Version	Description of change	Date

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SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of SQA Advanced Qualifications.

### Further information

Call SQA's Customer Contact Centre on 44 (0) 141 500 5030 or 0345 279 1000.  
Alternatively, complete our [Centre Feedback Form](#).

### General information for learners

**Unit title:** Health and Safety in Construction (SCQF level 7)

This section will help you to decide whether this is the unit for you by explaining: what the unit is about; what you should know or be able to do before you start; what you will need to do during the unit; and opportunities for further learning and employment.

This unit is about health and safety in the construction industry. In Outcome 1 you will be introduced to the Health and Safety at Work Act, Construction Design and Management Regulations (CDM) and other associated legislation. This will allow you to understand the duties and responsibilities of all parties across the construction industry.

Outcome 2 will introduce you to accident reporting techniques and aspects that fall within Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). You will examine safety statistics and means of improving health and safety. You will also investigate the cost of accidents, including financial costs such as lost time, fines as well as emotional loss.

In Outcome 3 you will learn how to identify hazards and how to implement risk assessment techniques that will help you look at the likelihood and severity of hazards occurring. You will develop knowledge of possible control measures that can be applied to reduce risk and how this affects the residual risk. Safe systems of work such as method statements will be introduced, as well as the importance of the communication of risks and controls to the workplace.

You will be assessed at appropriate points throughout the unit by answering questions and writing responses to given tasks.

The skills and knowledge that you acquired in this unit will help you progress in areas of the construction industry such as architecture and design, quantity surveying, construction management and various engineering disciplines.