



National Unit Specification: general information

UNIT Working across Construction Specialisms (SCQF level 6)

CODE F3JT 12

SUMMARY

This Unit is suitable for candidates with limited or no experience of civil engineering and the built environment. Candidates will learn about the advantages of effective team working in terms of reduced costs, construction time and defects. On completion the candidate should be able to demonstrate knowledge and understanding of the benefits of multi disciplinary team working and also the likely consequences of lack of awareness of 'other' trades and professionals.

OUTCOMES

- 1 Describe the various construction groups involved in the overall construction process.
- 2 Explain the effects lack of teamwork has on the construction process.
- 3 Describe the positive effects of effective teamwork on construction sites.

RECOMMENDED ENTRY

Entry is at the discretion of the centre.

CREDIT VALUE

1 credit at Higher (6 SCQF credit points at SCQF level 6*).

**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.*

Administrative Information

Superclass: TG

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National Unit Specification: general information (cont)

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CORE SKILLS

There is no automatic certification of Core Skills or Core Skill components in this Unit. Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches*.

National Unit Specification: 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.

OUTCOME 1

Describe the various construction groups involved in the overall construction process.

Performance Criteria

- (a) Describe the organisation of site construction teams for effective construction.
- (b) Describe the organisation of client and contractor teams to ensure quality.
- (c) Describe the membership of the design team for major construction contracts.

OUTCOME 2

Explain the effects lack of teamwork has on the construction process.

Performance Criteria

- (a) Describe the consequences of out of phase work.
- (b) Explain the effects of lack of teamwork on site health and safety.
- (c) Describe the potential for 'waste' on site for a given construction scenario.
- (d) Identify the implications of handing over a building with snags for a given construction scenario.
- (e) Describe the advantages of effective communication and cooperation between design team members.

OUTCOME 3

Describe the positive effects of effective teamwork on construction sites.

Performance Criteria

- (a) Explain the concept of 'synergy' in a construction site context.
- (b) Explain the effects of team work in reducing the incidence of defects.
- (c) Describe the advantages of teamwork in meeting construction completion dates.

EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required to demonstrate that the candidates have achieved all Outcomes and Performance Criteria.

Written and/or recorded oral evidence is required to demonstrate that the candidate has achieved this Unit to the standard specified in the Outcomes and Performance Criteria. The evidence for this Unit should be obtained under controlled, supervised conditions. The assessment will be closed-book and should last no more than two hours.

National Unit Specification: statement of standards (cont)

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An appropriate instrument of assessment would be best evidenced where candidates are able to undertake a visit to a construction site. Where this is not possible then candidates can be presented with a construction case study with specific construction activities selected by the centre for the assessment.

Evidence should comprise a written report produced in closed-book conditions answering set questions, based on a site visit or case study. There should be one set question for each Performance Criteria.

Evidence will be gathered at appropriate points throughout the delivery of the Unit. Assessments must be manageable and practicable for centres and candidates.

The Assessment Support Pack for this Unit provides appropriate sample assessment materials. Where centres wish to develop their own assessment materials they should refer to the Assessment Support Pack to ensure a comparable standard.

National Unit Specification: support notes

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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 developed as an optional Unit in the National Certificate in Civil Engineering and Built Environment at SCQF level 6 and can also be taken as a free-standing Unit.

Team working is very important in construction projects. In an effectively run project, all the parties should be working together as a team, including client, consultants and contractors. The process of selection for the project should seek not only individual levels of achievement but also create good and effective team working between members with separate skills and tasks. In the case of an integrated project process this team working is formalised; design and construction are tightly linked with the aim of offering best value and continual innovation is maintained to improve the performance of the whole team.

Synergy refers to the phenomenon in which two or more discrete influences or agents acting together create an effect greater than that predicted by knowing only the separate effects of the individual agents. It is originally a scientific term. Often the prediction is the sum of the effects each is able to create independently.

Synergy can also mean:

- ◆ a mutually advantageous conjunction where the whole is greater than the sum of the parts
- ◆ a dynamic state in which combined action is favoured over the sum of individual component actions
- ◆ behaviour of whole systems unpredicted by the behaviour of their parts taken separately. More accurately known as emergent behaviour

The use of rich pictures and mind mapping is a useful approach to the complex factors involved in team working and could be used in candidates' note taking at site visits.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

This Unit is best taught by reference to case studies and actual site visits. There are active sites where internet access can provide regular updates on progress if actual site visits are not practicable. Following site visits, construction tasks can be highlighted and detailed in a classroom environment, and used as exemplars, and group working simulations used to reinforce points.

Web quests could also be used to search for statistics on accidents, defects, and work roles.

National Unit Specification: support notes (cont)

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OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

In this Unit candidates will be:

- ◆ examining and consolidating knowledge of the positive and negative impact potential of relationships within teams in the construction industry
- ◆ examining the impact of personal behaviour on multi task teams
- ◆ enhancing their contribution to effective team interaction in the workplace

These offer opportunities to develop aspects of the Core Skills of:

- ◆ Working with Others

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

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 communications 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)*.

The assessment should be a closed-book supervised single test or alternatively staged over the period of delivery of the Unit to provide aggregated assessment of maximum duration of two hours is envisaged for this Unit. Assessments would be based on a site visited or real case studies/scenarios.

Short answer questions and responses are expected.

For the scenario presented the candidate should provide:

- ◆ written short answers describing the team members and roles for effective completion of the design, construction, and quality control
- ◆ a short report describing the importance of health and safety, reducing waste, and effective communications in avoiding defects and remedial work
- ◆ a short report outlining the ways in which good team work can prevent delays in completion of works

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

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. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).