

National Unit Specification: general information

UNIT Construction Crafts: Employability Skills (Intermediate 2)

CODE DM7C 11

COURSE Construction Crafts (Intermediate 2)

SUMMARY

This Unit is a mandatory Unit in the *Intermediate 2 Construction Crafts Course* and has been designed to be taken as part of this Course.

The *Intermediate 2 Construction Crafts: Employability Skills Unit* is suitable for candidates with no previous construction crafts experience and may also provide progression for candidates who have successfully completed the *Intermediate 1 Construction Crafts Course* or Units.

This Unit is to be undertaken in the context of practical crafts work. Candidates will have the opportunity to develop working practices which enhance employability. These working practices will include for example, good time-keeping, health and safety awareness, team working and the carrying out of quality checks. Candidates will also develop self-evaluation skills and the ability to adapt their performance in the light of self-evaluation and feedback from others. The Unit also incorporates skills which are common in all trade activities: skills in interpreting drawings; producing basic materials schedules; and carrying out basic risk assessments.

Candidates who achieve this Unit should feel confident in progressing to further study and training or employment.

OUTCOMES

- 1 Demonstrate work practices which enhance employability in construction crafts.
- 2 Carry out basic risk assessments.
- 3 Use scale drawings to calculate materials required for practical activities.
- 4 Evaluate and review own performance in specified employability skills.

Administrative Information

Superclass: HC

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RECOMMENDED ENTRY

Entry is at the discretion of the centre.

CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

*SCQF 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 points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.

CORE SKILLS

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

Opportunities for developing aspects of Core Skills are highlighted in *Guidance on Learning and Teaching Approaches for this Unit*.

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 the Scottish Qualifications Authority.

OUTCOME 1

Demonstrate work practices which enhance employability in construction crafts.

Performance Criteria

- (a) Work in accordance with given workshop protocol and safe systems of work.
- (b) Work co-operatively with others.
- (c) Carry out instructions from person responsible.
- (d) Maintain tidy work areas in accordance with health and safety requirements.
- (e) Check own practical work in accordance with prescribed schedule and standards.

OUTCOME 2

Carry out basic risk assessments.

Performance Criteria

- (a) Identify hazards in the context of construction crafts.
- (b) Identify people at risk from these hazards and describe how they might be harmed.
- (c) Evaluate the risks associated with hazards in terms of likelihood and impact.
- (d) Describe the control measures needed to minimise risk.

OUTCOME 3

Use scale drawings to calculate materials required for practical activities.

Performance Criteria

- (a) Use a scale rule to take measurements from a drawing to within prescribed tolerances.
- (b) Calculate materials requirements for practical activities taking account of waste, cutting and breakages.
- (c) Produce a correctly completed materials schedule on a given pro forma.

OUTCOME 4

Evaluate and review own performance in specified employability skills.

Performance Criteria

- (a) Identify own strengths and weaknesses in specified employability skills.
- (b) Identify learning points from own performance in specified employability skills.
- (c) Identify action points for improvement of own performance taking account of review and feedback.
- (d) Demonstrate progress in own performance over a period of time.

National Unit Specification: statement of standards (cont)

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Written/oral recorded evidence is required to show that all Outcomes and Performance Criteria have been achieved.

The evidence for this Unit will be generated from a practical assignment and candidate reviews.

Practical Assignment

A practical assignment covering Outcomes 2 and 3 will require candidates to produce:

- a minimum of **two** basic risk assessments in different trades, recorded on given pro forma
 - the two risk assessments may both be of workspaces or of trade activities; alternatively, candidates may carry out one risk assessment of a workspace and another of a trade activity
- a minimum of two materials schedules completed prior to commencement of practical activities

Candidate Reviews

Candidates will be required to:

- complete a minimum of three candidate review sheets relating to a minimum of three different practical trade activities
 - assessors will complete the relevant section of each review sheet, giving feedback on the candidate's performance
 - the assessor will sign each review sheet

The NAB item for this Unit contains candidate review sheets and pro forma for recording the results of risk assessment and materials requirements. The NAB illustrates the national standard required for this Unit. Centres who wish to devise their own assessments should refer to the NAB 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

The content and context for this Unit is at an introductory level. The main purpose of the Unit is to prepare candidates for employment in the construction industry. To this end the Unit focuses on encouraging candidates to develop the correct work practices and attitudes that are valued by employers. Candidates will develop the following employability skills, which are important to employers in the construction industry. These are also transferable skills that are valued in all sectors of work:

- ♦ timekeeping
- ♦ attendance
- following instructions
- taking advice and dealing with constructive feedback
- maintaining a tidy work area
- working co-operatively with others
- planning and preparation
- carrying out a baic risk assessment
- checking quality of own work
- having a positive attitude to learning
- ♦ self-evaluation skills
- awareness of health and safety issues
- interpreting graphic information
- calculating material requirements
- ♦ minimising waste

Candidates will be provided with an opportunity to review how well they have progressed in developing work practices by comparing their own evaluation with that of their assessors. They will also be asked to demonstrate that they can make progress in their performance in light of advice and feedback and their own evaluation. Candidates will have a significant degree of ownership in this process. They should be positively encouraged to develop the habit of seeking feedback from tutors and engaging in discussions about their progress and about aspects of their performance that they can improve. Tutors should give constructive feedback and support candidates in finding ways to improve.

If a candidate's attendance and timekeeping are already very good, positive feedback can be given and the tutor and candidate can concentrate on other aspects of the candidate's work or performance.

An important employability skill is the ability to work in accordance with workshop protocol and safe systems of work. The precise details of these requirements will be different from one workshop or workplace to another. However, these should cover aspects such as traffic routes, the checking in and checking out of tools, equipment and materials, as well as the order in which tasks are to be carried out or the number of people allowed in stores at any one time.

National Unit Specification: support notes (cont)

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The carrying out of risk assessment is an important aspect of work activities in all industries and workplaces. As the construction industry involves a significant number of potential hazards it is important that candidates are introduced to the kind of risk assessment regime they will encounter in the workplace. The principles and process of risk assessment are the same whether working on site or in a workshop. Moreover, a risk assessment is a requirement in all industries and places of work. Candidates will therefore be acquiring transferable skills when they learn how to carry out a risk assessment.

Candidates will learn the difference between a hazard and a risk. They will also learn how to identify common hazards in the workplace, become familiar with typical risk assessment forms and carry out basic risk assessments. Learning and teaching activities should focus on two aspects of risk assessment:

- risk assessment with regard to the workspace or workplace itself
- risk assessment with regard to the work activities to be carried out in the workplace or workshop

The process of risk assessment is well documented by the Health and Safety Executive (HSE) and generally involves the following steps:

- 1 Look for the hazards
- 2 Decide who might be harmed and how
- 3 Evaluate the risks and decide whether the existing precautions are adequate or whether more should be done
- 4 Record your findings
- 5 Review your assessment and revise it if necessary

As well as risk assessment, the ability to take a given drawing and produce a materials schedule provides candidates with another set of transferable skills. Candidates will interpret basic drawings in order to produce a materials schedule for practical trade activities. Materials schedules should include a clear description of the quantity and quality of building materials required for an activity.

In the construction industry, materials schedules are often produced either by the Site Agent or the Buyer. The Site Agent has the responsibility to make sure that everyone on site knows what they are doing and has the materials to carry on with their work. In this Unit, candidates are asked to carry out the materials ordering function for their own practical work models. The materials required by each candidate may be small in quantity, but candidates will still be using given drawings to go through a process used on all building projects. Just as a Site Agent will use a standard form for requisitioning materials, candidates will use a given pro forma for producing their materials schedule. An example is given in the NAB item.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

It is strongly recommended that delivery is integrated with other Units in the *Intermediate 2 Construction Crafts Course*. For example, with regard to Outcomes 1, 2 and 4, candidates should be actively encouraged to develop the correct work practices and attitudes in each of the trade-specific Units they undertake. Likewise, the scaling of drawings and the production of materials schedules for requisition purposes should be delivered and assessed around the practical construction activities the candidates are undertaking in the other Units of the *Intermediate 2 Construction Crafts Course*.

National Unit Specification: support notes (cont)

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In this Unit it is important that candidates are given a thorough induction which stresses the importance of the generic employability skills listed in *Guidance on the Content and Context for this Unit*. It would be helpful to invite speakers from industry and to give candidates the opportunity to speak to groups of employees and apprentices. This could help to reinforce the value that employers place on these skills in the real workplace.

Teachers/lecturers may also be able to use induction sessions to emphasise the importance of good health and safety practices and the potential consequences of breaches of the agreed safety rules.

Candidates will be sharing a workshop with others. They may have their own bench or space within the workshop but will have to learn how to work co-operatively with others regarding shared workspaces, shared tools, equipment and materials storage areas. At the start of each new workshop session teachers/lecturers could remind candidates of the protocols involved in the workshop and the potentially dangerous consequences of a failure to co-operate with fellow candidates in the workplace.

Candidates should be taught, at the earliest opportunity, how quality checks in the context of each trade should be carried out. This will help them to understand that each trade uses different materials or tools and may be working to a different set of standards and tolerances. The procedures of quality checking within each trade and the concept of 'right first time' may be explained as the candidate groups progress through the trade-specific activities. This may be done as a class group or in smaller groups as time permits. Candidates should become actively involved in carrying out quality checks of their own work as a matter of routine.

When working on risk assessment activities teachers /lecturers should demonstrate the process of risk assessment on identified workspaces and work activities. It will also be helpful for candidates to see a range of completed risk assessment forms. Before candidates are asked to carry out a risk assessment themselves, they should be taught about hazards associated with the workshop and work activities.

When learning how to produce materials schedules, the importance of correct scheduling and ordering of building materials can be illustrated by the use of bills of quantities and drawings from real-life building projects. Site visits might allow candidates to begin to appreciate what is involved in planning and ordering the materials for a new house.

It is likely that candidates will not appreciate all aspects of materials requirements in a trade before they have had some practical experience in that trade. Experience will help them learn to judge for example, how much extra to allow in a length of timber to take account of waste and cutting or how many extra bricks might be needed to take account of breakages. Once they have an appreciation of what is involved in practical trade activities, the teacher/lecturer should arrange tutorial sessions for the whole class on completing a materials schedule.

As preparation for reviews, candidates can be encouraged to get into the habit of asking for feedback on their performance in practical work. Teachers/lecturers could help to build candidates' confidence by giving regular, constructive feedback on generic skills such as: working co-operatively with others, carrying out instructions and working in accordance with workshop protocols. Such preparatory work will help candidates when they come to carry out their formal reviews.

National Unit Specification: support notes (cont)

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The *Intermediate 2 Construction Crafts: Employability Skills Unit* should also be seen as an opportunity for candidates to develop Core Skills within a practical construction craft context. For example, there are opportunities to develop numeracy skills when scaling measurements from building or component drawings and when allowing for waste and cutting of materials. Opportunities to develop oral communication skills will arise when candidates and teachers/lecturers undertake reviews. Writing skills will be developed when candidates produce risk assessments and materials schedules.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The process of review and evaluation using the Candidate Review Sheet provided in the NAB should take place at regular intervals throughout the learning and teaching process to demonstrate progression and development. The reviews should be carried out in the context of different trade activities. The first review should be undertaken after a few weeks when the candidate will be able to comment on his/her development of employability skills with a degree of understanding as to what these mean and how to evaluate them.

The assessment of the production of materials schedules should be carried out after candidates have become familiar with specific trade terms and materials and have begun to prepare for practical work. Candidates should be asked to use a standard pro forma for the presentation of their materials schedule. A pro forma is provided in the NAB pack for this Unit.

Candidates should learn about hazards and safety from their first day in the workshop. However, assessment of their skills in carrying out basic risk assessments should only take place after candidates have become familiar with both the workshop environment and the nature of their practical work. Candidates should be asked to carry out basic risk assessments and record the findings on a risk assessment form. A risk assessment form is provided in the NAB pack for this Unit.

All assessment records should be maintained and kept up to date to keep track of candidate progress and to provide evidence for internal and external moderation purposes.

A NAB item is available to support assessment of this Unit. If centres wish to develop their own assessment instruments these should be of a comparable standard.

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).