



Higher National Graded Unit Specification

General Information for Centres

This Graded Unit has been validated as part of the suite of HNCs within Built Environment award framework. Centres are required to develop the assessment instrument in accordance with this validated specification. Centres wishing to use another type of Graded Unit or assessment instrument are required to submit proposals detailing the justification for change for validation.

Graded Unit Title: Construction Management: Graded Unit 1

Graded Unit Code: DX21 34

Type of Graded Unit: Project

Assessment Instrument: Case Study

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 National 1 to Doctorates.*

Purpose: This Graded Unit is designed to provide evidence that the candidate has achieved the following principal aims of the HNC in Construction Management:

General aims — to develop:

- ◆ skills of study, research and analysis
- ◆ ability to define and solve problems
- ◆ transferable skills
- ◆ ability to be flexible and work cooperatively with others
- ◆ responsibility for own learning
- ◆ planning, organisational and review/evaluation skills
- ◆ technical skills — broadening and deepening
- ◆ oral, written and pictorial communication skills
- ◆ numerical and ICT skills
- ◆ resource management ability
- ◆ flexibility, knowledge, skills and motivation as a basis for progression to graduate and postgraduate studies

General Information for Centres (cont)

Specific aims are to:

- ◆ Prepare candidates for employment in the management of construction projects involving coordination of many different types of organisation, perhaps from different countries, in constructing buildings of ever increasing complexity under modern procurement systems.
- ◆ Provide candidates with a range of contemporary vocational skills embracing the management of construction organisations and human resources, together with construction, technology, contracts, law, financial and information technology, planning and elements of site administration.
- ◆ Provide a choice of optional Units that will allow candidates to develop in other areas relevant to future employment or progression via an HND in one of the Built Environment disciplines or Higher Education.
- ◆ Enable candidates to achieve appropriate professional body recognition, particularly but not exclusively, the Chartered Institute of Building.

Recommended Prior Knowledge and Skills: It is recommended that the candidate should have completed or be in the process of completing the following Units relating to the above specific aims prior to undertaking this Graded Unit:

Mandatory (M)

Unit Title	Credit	Level	Unit Number
Construction Materials and Specifications	1	7	DW53 34
Construction Site Surveying A	1	7	DW5H 34
Construction Technology: Indust/Comm Superstructure	1	7	DW55 34
Construction Technology: Substructure	1	7	DW57 34
HNC Construction Management Graded Unit 1	1	7	DX20 34
Site Administration	1	7	DW4L 34
Standard Forms of Construction Contract	1	8	DW3N 35

Core Skills: There are opportunities to develop the Core Skill of Problem Solving in this Graded Unit, although there is no automatic certification of Core Skills or Core Skills components.

Assessment: This Graded Unit will be assessed by the use of a Case Study. The investigation, analysis and development of solutions should provide the candidate with the opportunity to produce evidence that demonstrates she/he has met the aims of the Graded Unit that it covers.

An exemplar instrument of assessment and marking guidelines have been produced to provide examples of the type of evidence required to demonstrate achievement of the aims of the Group Award covered by this integrative assessment and to indicate the national standard of achievement at SCQF level 7.

Administrative Information

Graded Unit Code: DX21 34

Graded Unit Title: Construction Management: Graded Unit 1

Original date of publication: August 2006

Version: 02

History of Changes:

Version	Description of change	Date
02	Update of Conditions of Assessment	July 2018

Source: SQA

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SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of Higher National qualifications.

FURTHER INFORMATION: Call SQA's Customer Contact Centre on 0345 279 1000.

Higher National Graded Unit Specification: Instructions for designing the assessment task and assessing candidates

Graded Unit Title: Construction Management: Graded Unit 1

Conditions of Assessment

The candidate should be given a date for completion of the case study. However, the instructions for the assessment task should be distributed to allow the candidate sufficient time to assimilate the details and carry out the assessment task. During the time between the distribution of the assessment task instructions and the completion date, assessors may answer questions, provide clarification, guidance and reasonable assistance.

Parameters should be agreed with the tutor/supervisor by the candidate(s) on a continuing basis providing clarification, guidance and reasonable assistance. Reasonable assistance is the term used by SQA to describe the difference between providing candidates with some direction to generate the required evidence for assessment and providing too much support which would compromise the integrity of the assessment. Reasonable assistance is part of all learning and teaching processes. In relation to the assessment of Higher National Project-based Graded Units, assessors may provide advice, clarification, and guidance during the time between the distribution of the project instructions and the completion date, ie at each stage of the project.

Remediation allows an assessor to clarify candidate responses, either by requiring a written amendment or by oral questioning, where there is a minor shortfall or omission in evidence requirements. In either case, such instances must be formally noted by the assessor, either in writing or by recording, and be made available to the internal and external verifier. In relation to Higher National Project-based Graded Units, candidates must be given the opportunity for remediation at each stage of the project.

The evidence for a Higher National Project-based Graded Unit is generated over time, and involves three distinct stages, each of which has to be achieved before the next is undertaken. This means that any re-assessment of stages must be undertaken before proceeding to the next stage. The overall grade is derived from the total number of marks *across all sections*, and should reflect the ability of the candidate to work autonomously, and the amount of support required. In relation to Higher National Project-based Graded Units, candidates who have failed any stage of the project, and have been unable to provide the necessary evidence through remediation must be given the opportunity for re-assessment of that stage.

Each assessment task should be marked as soon as possible after the completion date. The final grading given should reflect the quality of the candidate's evidence at the time of the completion date, including any oral examination. At this level, candidates should work independently within the context of a typical working environment. It is up to Centres to take reasonable steps to ensure that the candidates bring their specialist knowledge and experience to the project. For example, Centres may wish to informally question candidates at various stages on their knowledge and understanding of the project/case study on which they have embarked. Centres should ensure that where research etc, is carried out in other establishments or under the supervision of others that the candidate does not receive undue assistance. Candidates should be allowed to use appropriate technology within and outwith the college environment.

To ensure authentication of work it is advisable for candidates to complete a log or diary recording progress and tasks completed. There should be regular meetings between the tutor and candidate(s) to review progress and these meetings should be recorded.

Higher National Graded Unit Specification: Instructions for designing the assessment task and assessing candidates (cont)

The final evaluation should include an oral examination of each candidates understanding of the evidence submitted. Where possible the involvement of an employer in the oral examination is encouraged.

Any candidate who has failed their graded unit or wishes to upgrade their award must be given a re-assessment opportunity, or in exceptional circumstances, two re-assessment opportunities. In the case of project-based graded units, this must be done using a substantially different project.

The final grading given must reflect the quality of the candidate's evidence at the time of the completion of the graded unit. Candidates must be awarded the highest grade achieved — whether through first submission or through any re-assessment, remediation, and/or reasonable assistance provided.

Higher National Graded Unit Specification: Instructions for designing the assessment task and assessing candidates (cont)

Instructions for designing the assessment task

The assessment task is a project. The project undertaken by the candidate must be a complex task which involves:

- ◆ variables which are complex or unfamiliar
- ◆ relationships which need to be clarified
- ◆ a context which may be familiar or unfamiliar to the candidate

The assessment task must require the candidate to:

- ◆ analyse the task and decide on a course of action for undertaking the project
- ◆ plan and organise work and carry it through to completion
- ◆ reflect on what has been done and draw conclusions for the future
- ◆ produce evidence of meeting the aims which this Graded Unit has been designed to cover

The assessment task should be a case study based project within the context of a domestic building development project (new build or refurbishment). The range of the tasks to be undertaken should be defined in relation to the context of the particular building development, and what it is reasonable to expect of candidates in the time scales available. The issues selected should focus on the main aims of the HNC course, and the need to demonstrate an ability to integrate knowledge and skills across the mandatory Units in the award.

The investigation should allow the candidate(s) to demonstrate valid and realistic responses to the current and future needs of an ongoing development including, where appropriate, issues of Health and Safety and sustainability. Safe working practices should be looked at in accordance with current safety codes of practice and regulations. Sustainability should include reference to criteria affecting sustainability, impact of not implementing sustainability on the environment and the legislation promoting sustainability.

NOTE:

Where candidates are progressing from a HNC to a HND programme the Centre may wish to consider that the HND Graded Unit 2 task/s might be an extension of the tasks for the HNC Graded Unit 1. A similar progression might also be considered for candidates progressing through the three Graded Units credits of a HND.

Guidance on grading candidates

Candidates who meet the minimum Evidence Requirements will have their achievement graded as C — competent, or A — highly competent or B somewhere between A and C. The grade related criteria to be used to judge candidate performance for this Graded Unit is specified in the following table.

Higher National Graded Unit specification: Instructions for designing the assessment task and assessing candidates (cont)

Grade A	Grade C
<p>Is a seamless, coherent piece of work which has many more strengths than weaknesses and:</p> <ul style="list-style-type: none"> ◆ Provides considerably more than the minimum evidence for each of the three tasks required by the project brief. ◆ Evidence is produced to a very high standard. ◆ Demonstrates an accurate and particularly insightful interpretation of the project brief. ◆ Has continuously accessed available guidance in arriving at the Outcomes submitted. ◆ Embodies non-traditional and innovative solutions. ◆ Has accessed a wide range of available data and design guidance. ◆ Outcomes are of a high standard in terms of level, accuracy and technical content. ◆ Effectively consolidates and integrates required knowledge and skills. ◆ Considers possible conflicts in integrating solutions in relation to constraints imposed. ◆ Includes rationale and justification for solutions proposed. ◆ Clearly addresses a ‘fit for purpose’ objective in arriving at proposed solutions. ◆ Clearly identifies key areas for improvement when undertaking the work to the defined time line action plan. ◆ Clearly identifies key areas for improvement when reflecting on the technical solutions chosen compared with the initial objectives. 	<p>Is a co-ordinated piece of work which has a balance of strengths and weaknesses and:</p> <ul style="list-style-type: none"> ◆ Provides the minimum evidence for each of the three tasks required by the project brief. ◆ Evidence is produced to an acceptable standard. ◆ Demonstrates an acceptable interpretation of the project brief. ◆ Has not amplified the initial project brief in arriving at the Outcomes submitted. ◆ Embodies only routine and traditional solutions. ◆ Has accessed a minimal range of available data and design guidance. ◆ Outcomes are adequate in terms of level, accuracy and technical content. ◆ Consolidates and integrates knowledge and skill but this may lack some continuity and consistency. ◆ Treats proposed solution in isolation. ◆ Presents proposed solutions without justification. ◆ Has not considered cost or quality issues. ◆ Achieves Outcomes with minimal evaluation against the time line plan. ◆ Assumes the technical solutions chosen as the ‘most appropriate’ with minimal retrospective comparison with initial objectives.

Higher National Graded Unit specification: Instructions for designing the assessment task and assessing candidates (cont)

The project will be marked out of 200. Assessors will mark each stage of the project, taking into account the criteria outlined. The marks will then be aggregated to arrive at an overall mark for the project. Assessors will then assign an overall grade to the candidate for this Graded Unit based on the following grade boundaries.

- A = 70% — 100%
- B = 60% — 69%
- C = 50% — 59%

Note: the candidate must achieve all of the minimum evidence specified below for each stage of the project in order to achieve the Graded Unit.

Evidence Requirements

The project consists of three stages: planning; developing; and evaluating. The following table specifies the minimum evidence required to pass each stage.

Note: The candidate must achieve **all of the minimum evidence** specified below for each stage of the project in order to pass the Graded Unit.

Project Stage	Minimum Evidence Requirements
Stage 1 — Planning <i>Maximum 30 marks</i>	Develop a plan for completion of tasks 2 and 3 <ul style="list-style-type: none"> ◆ Suitable time line action plan <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Planning stage.</i></p>
Stage 2 — Developing <i>Maximum 140 marks</i>	Use appropriate methods in undertaking the specified tasks <ul style="list-style-type: none"> ◆ Selected criteria with reasoning/justification ◆ Identified required data ◆ ‘First principles’ evaluation of agreed elements of the task ◆ Evaluation using computer packages or other alternative processes Produce evidence (reports, drawings, schedules, calculations, specifications) etc. <ul style="list-style-type: none"> ◆ Adequate drawing, schedules, calculations, specifications etc to justify understanding and completion of required tasks ◆ Rationale and justification for proposal submitted

Higher National Graded Unit specification: Instructions for designing the assessment task and assessing candidates (cont)

Project Stage	Minimum Evidence Requirements
Stage 2 — Developing (cont)	Create a project portfolio <ul style="list-style-type: none"> ◆ Portfolio including executive summary and evidence of development and conclusions ◆ Presentation as introduction to an oral examination to include design objectives and summary of chosen solutions <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Developing stage.</i></p>
Stage 3 — Evaluating <i>Maximum 30 marks</i>	Reflect on the Outcomes of tasks 1 and 2 <ul style="list-style-type: none"> ◆ Critical evaluation of Outcomes achieved compared with the time line action plan ◆ Critical comparison of submitted evidence against initial objectives ◆ Identification of feedback to inform future similar tasks <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Evaluating stage.</i></p>

Equality and inclusion

This graded 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.