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: Architectural Technology: Graded Unit 1

Graded Unit Code: DX1X 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 Access 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 Architecture Technology.

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

Specific aims are to:

♦ Prepare candidates for employment as Architectural Technicians in private practice working with Architects, Surveyors, Interior Designers and Architectural Technologists in specialist design/build contractors, local authorities and larger organisations with in-house design/drafting services.

General Information for Centres (cont)

♦ Provide candidates with a range of contemporary vocational skills including the preparation, co-ordination and communication of technical information including drawings, graphical information, reports and schedules, contributing to meeting relevant statutory regulations and controlling projects by monitoring agreed quality standards and obtaining, recording and organising information.

♦ 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 Architectural Technology, as 'TCIAT'.

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
Architectural Design Sketching and Drawing	1	7	DW3R 34
Architectural Procedures and Design	1	7	DW3P 34
CAD 2-D 1	1	7	DW1E 34
Construction Materials and Specifications	1	7	DW53 34
Construction Technology: Indust/Comm Superstructure	1	7	DW55 34
Construction Technology: Substructure	1	7	DW57 34
Design of Building Structures	1	7	DW3V 34
HNC Architectural Technology Graded Unit 1	1	7	DX1X 34

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: DX1X 34

Graded Unit Title: Architectural Technology: Graded Unit 1

Original date of publication: August 2006

Version: 01

History of Changes:

Version	Description of change	Date

Source: SQA

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

Graded Unit Title: Architectural Technology: 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. The 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.

The evidence for the project is generated over time and involves three distinct stages, where each stage has to be achieved before the next is undertaken. Thus any reassessment of stages must be undertaken before proceeding to the next stage.

If a candidate fails the project overall or wishes to upgrade, then this must be done using a *substantially different* project, ie all stages are undertaken using a new project, assignment, case study, etc. In this case, a candidate's grade will be based on the achievement in the *reassessment*.

The candidate should be given a date for completion of the case study. Parameters should be agreed with the tutor/supervisor by the candidate/s) on a continuing basis providing clarification, guidance and reasonable assistance.

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. Reassessment of this Graded Unit should be based on a significantly different assessment task.

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.

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.

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
Is a seamless, coherent piece of work which has many more strengths than weaknesses and:	Is a co-ordinated piece of work which has a balance of strengths and weaknesses and:
♦ Provides considerably more than the minimum evidence for each of the three tasks required by the project brief.	♦ Provides the minimum evidence for each of the three tasks required by the project brief.
♦ Evidence is produced to a very high standard.	♦ Evidence is produced to an acceptable standard.
♦ Demonstrates an accurate and particularly insightful interpretation of the project brief.	♦ Demonstrates an acceptable interpretation of the project brief.
♦ Has continuously accessed available guidance in arriving at the Outcomes submitted.	♦ Has not amplified the initial project brief in arriving at the Outcomes submitted.
♦ Embodies non-traditional and innovative solutions.	♦ Embodies only routine and traditional solutions.
♦ Has accessed a wide range of available data and design guidance.	♦ Has accessed a minimal range of available data and design guidance.
♦ Outcomes are of a high standard in terms of level, accuracy and technical content.	♦ Outcomes are adequate in terms of level, accuracy and technical content.
♦ Effectively consolidates and integrates required knowledge and skills	♦ Consolidates and integrates knowledge and skill but this may lack some continuity and consistency.
♦ Considers possible conflicts in integrating solutions in relation to constraints imposed.	♦ Treats proposed solution in isolation .
♦ Includes rationale and justification for solutions proposed.	♦ Presents proposed solutions without justification.
♦ Clearly addresses a 'fit for purpose' objective in arriving at proposed solutions.	♦ Has not considered cost or quality issues.
♦ Clearly identifies key areas for improvement when undertaking the work to the defined time line action plan.	♦ Achieves Outcomes with minimal evaluation against the time line plan.
♦ Clearly identifies key areas for improvement when reflecting on the technical solutions chosen compared with the initial objectives.	♦ Assumes the technical solutions chosen as the 'most appropriate' with minimal retrospective comparison with initial objectives.

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)

The project will be marked out of 100. 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 *Maximum 30 marks*	Develop a plan for completion of tasks 2 and 3 ♦ Suitable time line action plan *The candidate must achieve all of the minimum evidence specified above in order to pass the Planning stage.*
Stage 2 — Developing *Maximum 140 marks*	Use appropriate methods in undertaking the specified tasks ♦ 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. ♦ 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 ♦ 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 *The candidate must achieve all of the minimum evidence specified above in order to pass the Developing stage.*
Stage 3 — Evaluating *Maximum 30 marks*	Reflect on the Outcomes of tasks 1 and 2 ♦ 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 *The candidate must achieve all of the minimum evidence specified above in order to pass the Evaluating stage.*

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 special alternative assessment arrangements. For information on these, please refer to the SQA document *Guidance on Alternative Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on SQA's website: **www.sqa.org.uk**.