SCOTTISH QUALIFICATIONS AUTHORITY

Scottish Group Award Specifications

SGA in:	**Construction: Civil Engineering**		
Level:	**Higher**	**Code:**	**G5AA 12**

Summary of requirements

SGA in Construction: Civil Engineering at Higher

National Courses and Units required*

3 mandatory National Courses (12 credits) at Higher:
Civil Engineering
Construction
Structural Engineering

Details in specific section

plus

1 mandatory National Unit (1 credit):
Mathematics 2 (Int 2)

Details in specific section

plus

7 credits at minimum of Intermediate 2

Details in specific section

Total 20 credits

Core skills required*

The above must include or cover:
5 core skills at Intermediate 2

Details in specific section

*****See Important Note on page 4.

Rules for credit contribution

Important Note* Achievement above the minimum requirements

The specification shows the **minimum** requirements for this SGA. Where possible, centres may wish to encourage candidates to exceed this minimum. Candidates achieving above the minimum specification will have this achievement recorded on their Scottish Qualifications Certificate.
For example the following can be achieved above the minimum requirement:

- Core Skills at levels above those specified
- more National Courses and Units at Higher instead of the credits at Intermediate 2
- National Course grades, eg grade A or B instead of grade C
- more than the required three National Courses, in which case each additional course completed counts as four credits

Hierarchies

- courses and units can be substituted by those with the same title at a higher level, eg Mathematics 1 (Int 2) can be substituted by Mathematics 1 (H) (See Section E)

Double counting

- courses and units with the same title at different levels cannot both contribute credits to the SGA, eg **either** Mathematics 1 (Int 2) **or** Mathematics 1 (H)
- same course achieved with different grades cannot both contribute credits to the SGA, eg **either** Higher Civil Engineering at grade A **or** Higher Civil Engineering at grade C

Specific section

A

This section specifies: mandatory courses, mandatory units, mandatory combinations of courses and/or units, mandatory core skill requirements and optional courses and units.

*Mandatory unit of a course. †Optional unit of a course. All other units are free-standing National Units.
[ ]Bracketed numbers indicate the former coding for these unrevised National Units.

Course/unit no	Course/unit title	Credits
Three mandatory National Courses:		
C022 12	Civil Engineering (H)	4
C019 12	Construction (H)	4
C01R 12	Structural Engineering (H)	4
plus one mandatory National Unit:		
D322 11	*Mathematics 2 (Int 2)	1
	Total credits required: 13	
plus any combination of courses, component units and free-standing units to gain seven credits (at minimum Int 2) from:		
Course:		
C021 12	Building and Architectural Technology (H)	4
Component units of course:		
D114 12	*Building Technology: Components and Finishes (H)	1
D113 12	*Building Technology: Principles and Processes (H)	2
Course:		
C023 12	Building Services (H)	4
Component units of course:		
D124 12	*Building Services Design: Electrical Installations (H)	1
D123 12	*Building Services Design: Heating and Ventilation (H)	1
D122 12	*Building Services Provision: Low Rise Buildings (H)	1
Course:		
C020 12	Land Use (Built Environment) (H)	4
Component units of course:		
D112 12	*Land Use: Economics (H)	1
D110 12	*Land Use: Mapping (H)	1
D111 12	*Land Use: Planning (H)	1
Course:		
C01P 12	Quantity Surveying (H)	4
Component units of course:		
D22T 12	*Building Contracts and Tendering (H)	1
D911 12	*Building Estimating (H)	1
D22S 12	*Construction, Measurement and Description (H)	1

Course/unit no	Course/unit title	Credits
Course:		
C01N 11	Construction Industry Practice (Int 2)	4
Component units of course:		
D916 11	*Construction Industry Studies (Int 2)	0.5
D917 11	*Construction Measurement and Costing (Int 2)	0.5
D921 11	*Drawing for Building (Int 2)	1
D923 11	*Properties and Uses of Construction Materials (Int 2)	1
Free-standing National Units:		
D913 12	Civil Engineering: Administration (H)	1
D914 12	Civil Engineering: Materials and Testing (H)	1
D915 12	Civil Engineering: Sitework (H)	1
D985 12	Computer Aided Draughting (CAD) (H)	1
ED51 12	Mathematics: Analysis/Algebra 2 (H) [7180414]	1
EE3X 12	Mathematics: Calculus A (H) [7181155]	0.5
D924 12	Site Surveying 2 (H)	1
E81P 12	Surveying 3 (H) [65118]	1
D36H 11	Work Experience (Int 2)	1
D01B 11	Communication (Int 2)	1
D01C 11	Numeracy (Int 2)	1
D01D 11	Information Technology (Int 2)	1
D01E 11	Problem Solving (Int 2)	1
D01F 11	Working with Others (Int 2)	1

Specific SVQs can contribute credits to this SGA. (See Section D)

Total credits required: 7

20 credits

** Core skills requirement

Communication at Intermediate 2
Numeracy at Intermediate 2
Information Technology at Intermediate 2
Problem Solving at Intermediate 2
Working with Others at Intermediate 2

****** See Section B for core skills details.

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For example the following can be achieved above the minimum requirement:

- Core Skills at levels above those specified
- more National Courses and Units at Higher instead of the credits at Intermediate 2
- National Course grades, eg grade A or B instead of grade C
- more than the required three National Courses, in which case each additional course completed counts as four credits

Hierarchies

- courses and units can be substituted by those with the same title at a higher level, eg Mathematics 1 (Int 2) can be substituted by Mathematics 1 (H) (See Section E)

Double counting

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- same course achieved with different grades cannot both contribute credits to the SGA, eg **either** Higher Civil Engineering at grade A **or** Higher Civil Engineering at grade C

Core skills

B

To achieve this SGA, all candidates **must achieve** the following core skills:

Core skill	Level
Communication	Intermediate 2
Numeracy	Intermediate 2
Information Technology	Intermediate 2
Problem Solving	Intermediate 2
Working with Others	Intermediate 2

One or more core skills units in this SGA may be automatically certificated through mandatory courses and units. Where this is the case, the corresponding core skill unit in this section cannot be counted towards the SGA.

Candidates can achieve core skills:

- through Standard Grades or other units which give automatic certification of core skills, eg a candidate who has completed Standard Grade English at Credit Level is given automatic certification of Communication at Intermediate 2
- by selecting from the group award units and courses which give automatic certification of core skills, eg the Higher course in Civil Engineering gives automatic certification of the core skill elements Critical Thinking, Planning and Organising and Using Number
- by doing dedicated core skills units – these units can contribute credits to the SGA and should be achieved through integration with appropriate subject specialist units. However, if the candidate wishes, the unit credits need not contribute to the SGA.

Candidates' current level of achievement in core skills is shown on the Scottish Qualifications Certificate in the form of a profile. This shows achievement against each of the core skills *components*. Where a core skill has more than one component, the candidate needs to achieve each component at the level specified for the SGA. For example, if an SGA requires Problem Solving at Intermediate 2, a candidate whose profile shows Critical Thinking and Planning and Organising at Intermediate 2 and Reviewing and Evaluating at Intermediate 1 would not meet the requirement and would have to improve in Reviewing and Evaluating.

Details of all courses which give automatic certification of core skills is published in *Automatic Certification of Core Skills in National Qualifications* (SQA, 1999).

Hierarchical sequences

C

The SQA numbering system for qualifications consists of a 4 + 2 reference code.

The qualifications in a hierarchical sequence have the same title and are available at more than one level. They are identified by their reference code having the same first four digits, eg D36H in the example below. The last two digits are unique to each level of qualification, eg 12 equates to Higher, 11 equates to Intermediate 2.

Units

The following is an example of a hierarchical sequence of units:

D36H 10	Work Experience (Int 1)
D36H 11	Work Experience (Int 2)
D36H 12	Work Experience (H)

Where units which are part of hierarchical sequences are specified, candidates who achieve a unit at a higher level than the one specified can use the upper level unit to count as credit towards the group award. For example, Work Experience (H) can be counted instead of Work Experience (Int 2).

Candidates can only use one of these units to count as credit towards the group award.

In the case of unrevised National Certificate Modules, ie units which retain their original number, there are hierarchies where the title is the same and the number is different. Details of these exceptions will be published in a separate document. The pattern for these hierarchies is the same as that previously established for GSVQs.

There are also some hierarchies where the titles and numbers of the units at different levels are different. In this specification, if there are two units at different levels with heavily overlapping content, only one of these units should be used to count as credit towards the group award. Details of these exceptions will be published in a separate document.

Courses

The following is an example of a hierarchical sequence of courses:

C022 12	Civil Engineering (H)
C022 13	Civil Engineering (AH)

In the SGA specification, where courses which belong to hierarchical sequences are specified, candidates who achieve a course at a higher level than the one specified can use the upper level course to count as credit towards the group award. For example, Civil Engineering (AH) can be counted instead of Civil Engineering (H).

Candidates can only use one of these courses to count as credit towards the group award - a maximum of 4 credits.

SVQs

D

Specific Scottish Vocational Qualifications (SVQs) at the appropriate level can each contribute up to eight credits to an SGA.

SVQs at Level 3 contribute credits at Higher.
SVQs at Level 2 contribute credits at Intermediate 2.

In this particular SGA the following SVQ can contribute a maximum of seven credits.

Code no	Specific SVQs	Level
003 Constructing		
	Construction Site Supervision'	3

'Subject to accreditation, Summer 2002.

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