

Scottish Group Award Specifications

SGA in:	Construction		
Level:	Higher	Code:	G5A7 12

Summary of requirements

SGA in Construction at Higher

National Courses and Units required*

1 mandatory National Course (4 credits) at Higher:
Construction

Details in specific section

plus

2 National Courses (8 credits) at Higher from:
Building and Architectural Technology
Building Services
Civil Engineering
Land Use (Built Environment)
Quantity Surveying
Structural Engineering

Details in specific section

plus

1 mandatory National Unit (1 credit):
Mathematics 1 (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 C)

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

National Course awards at Grade D

National Course awards at Grade D can contribute to the SGA in the following ways:

- in place of the specified mandatory or optional Higher Courses, a grade D at Advanced Higher in a Course of the same title can contribute 4 credits to the SGA

Note - The former compensatory course awards (fallbacks) can also contribute to the SGA:

- in place of the specified mandatory or optional Higher Courses, a compensatory award for a Course of the same title taken at Advanced Higher (ie awarded at Higher) can contribute 4 credits to the SGA.

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
One mandatory National Course:		
C019 12	Construction (H)	4
plus two National Courses from:		
C021 12	Building and Architectural Technology (H)	4
C023 12	Building Services (H)	4
C022 12	Civil Engineering (H)	4
C020 12	Land Use (Built Environment) (H)	4
C01P 12	Quantity Surveying (H)	4
C01R 12	Structural Engineering (H)	4
plus one mandatory National Unit:		
D321 11	Mathematics 1 (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:

Building and Architectural Technology

Course:

C021 12	Building and Architectural Technology (H)	4
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Component units of course:

D114 12	*Building Technology: Components and Finishes (H)	1
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D113 12	*Building Technology: Principles and Processes (H)	2
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Course:

C01P 12	Quantity Surveying (H)	4
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Component units of course:

D22T 12	*Building Contracts and Tendering (H)	1
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D911 12	*Building Estimating (H)	1
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D22S 12	*Construction, Measurement and Description (H)	1
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Course:

C01R 12	Structural Engineering (H)	4
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Component units of course:

D22V 12	*Structural Design and Detailing (H)	1
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D22W 12	*Structural Drawing and Detailing (H)	1
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D925 12	*Structural Mechanics and Design 2 (H)	1
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Course/unit no	Course/unit title	Credits
Free-standing National Units:		
D912 12	Building Technology: Sitework and Safety (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
E8M8 12	Construction Fundamentals 1 (H) [75013]	1
E8M9 12	Environmental Design Factors (H) [75020]	0.5
D924 12	Site Surveying 2 (H)	1
E8NR 11	Construction and Commercial Practice (Int 2) [75443]	1

Building Services

Course:

C023 12	Building Services (H)	4
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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

Free-standing National Units:

E8MP 12	Air Conditioning Plant and Ductwork (H) [75068]	1
D985 12	Computer Aided Draughting (CAD) (H)	1
E8ML 12	Heating and Process Pipe Sizing (H) [75065]	1
E8MH 12	Heating and Ventilating: Building Heat Requirements (H) [75062]	1
E8MM 12	Heating and Ventilating: Fuels and Combustion (H) [75066]	1
E8MJ 12	Heating and Ventilating: Services Provision (H) [75063]	1
E7RE 12	Introduction to Thermofluids (H) [64008]	1
E8MN 11	Air Conditioning Psychrometry (Int 2) [75067]	1
E8MX 11	Building Services: Mechanical Systems (Int 2) [75151]	0.5
EA8J 11	Electrical Installation: Site Procedures (Int 2) [4110302]	0.5
E8N5 11	Engineering Services Drawing 1 (Int 2) [75235]	1
E8N6 11	Engineering Services Drawing 2 (Int 2) [75236]	1
E8MK 11	Heating and Ventilating: Steam Systems (Int 2) [75064]	0.5
E9MD 11	Materials and Jointing Methods (Electrical) (Int 2) [4110060]	0.5
EA05 11	Mechanical Services Technology: Ventilation and Air Conditioning (Int 2) [4290061]	0.5
E9CG 11	Selecting a Cable Size (Int 2) [94105]	0.5

Civil Engineering

Course:

C022 12	Civil Engineering (H)	4
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Component units of course:

D117 12	*Civil Engineering Practice (H)	1
D118 12	*Civil Engineering Technology (H)	1
D119 12	*Structural Mechanics and Design 1 (H)	1

Course/un	Course/unit title	Credits
Course:		
C01R 12	Structural Engineering (H)	4
Component units of course:		
D22V 12	*Structural Design and Detailing (H)	1
D22W 12	*Structural Drawing and Detailing (H)	1
D925 12	*Structural Mechanics and Design 2 (H)	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

Land Use (Built Environment)

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
Free-standing National Units:		
E854 12	Cartography 3: Principles of Complex Map Construction (H) [65559]	1
E855 12	Cartography 4: Practical Map Production (H) [65560]	1
D985 12	Computer Aided Draughting (CAD) (H)	1
E86S 12	Planning 2: Survey and Analysis (H) [65677]	0.5
E81P 12	Surveying 3 (H) [65118]	1
E853 11	Cartography 2: Principles of Map Construction (Int 2) [65558]	1
E86V 12	Landscape 2: Human Impact (H) [65680]	1
E86T 11	Landscape 1: The Natural Environment (Int 2) [65679]	0.5
E851 11	Photogrammetry 1: Introduction to Aerial Surveys (Int 2) [65554]	0.5
EC80 11	Presenting Basic Graphical Information (Land Use and Development) (Int 2) [4350053]	1
E86W 11	Townscape 2: Field Study (Int 2) [65682]	0.5

Quantity Surveying

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:		
C01R 12	Structural Engineering (H)	4
Component units of course:		
D22V 12	*Structural Design and Detailing (H)	1
D22W 12	*Structural Drawing and Detailing (H)	1
D925 12	*Structural Mechanics and Design 2 (H)	1

Work Experience

Free-standing National Unit:

D36H 11	Work Experience (Int 2)	1
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Core Skills

Free-standing National Units:

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.

Rules for credit contribution

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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 optional unit Work Experience (Int 2) gives automatic certification of Problem Solving and Working with Others at Intermediate 2
- 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 the *Catalogue of Core Skills in National Qualifications* (SQA, 2001/2002).

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:

C021 12	Building and Architectural Technology (H)
C021 13	Building and Architectural Technology (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, Building and Architectural Technology (AH) can be counted instead of Building and Architectural Technology (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 SVQs can each contribute a maximum of seven credits.

Code no		
003 Constructing		
*	Construction Site Supervision (Building and Civil Engineering)	3
*	Construction Site Supervision (Highways Maintenance)	3
G3RA 23	Town Planning Support (Administration)	3
G3RC 23	Town Planning Support (Development Control)	3
G3RB 23	Town Planning Support (Enforcement)	3
G3R9 23	Town Planning Support (Technical)	3
G63N 23	Construction Contracting (Buying)	3
G63R 23	Construction Contracting (Estimating)	3
G63P 23	Construction Contracting (Planning)	3
G63M 23	Construction Contracting (Surveying)	3
G3R8 23	Site Inspection (Mechanical/Electrical)	3
G3R7 23	Site Inspection (Building/Civil)	3
G63V 24	Construction Contracting (Buying)	4
G63S 24	Construction Contracting (Estimating)	4
G63W 24	Construction Contracting (Planning)	4
G63T 24	Construction Contracting (Surveying)	4

* Code to be allocated, please contact SQA for details

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