Group Award Specification for:

HNC Computer Aided Architectural Design and Technology at SCQF level 7

Group Award Code: GL5D 15

HND Computer Aided Architectural Design and Technology at SCQF level 8

Group Award Code: GL5E 16

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Contents

1 Introduction

This document was previously known as the Arrangements document. The purpose of this document is to:

- assist centres to implement, deliver and manage the qualification
- provide a guide for new staff involved in offering the qualification
- inform course managers teaching staff, assessors, learners, employers and HEIs of the aims and purpose of the qualification
- provide details of the range of learners the qualification is suitable for and progression opportunities

The HNC and HND Computer Aided Architectural Design and Technology qualifications were first validated in 2000/2001 and were known as HNC and HND Architectural Technology with CAD. The qualifications subsequently went through a major review in 2007/2008 and were named HNC and HND Computer Aided Architectural Design and Technology (CAADT). Since 2007/2008 over 175 learners have achieved the HNC and 112 the HND and progressed onto university or into employment. In 2014/2015 a further review of the qualifications took place. The Qualifications Development Team engaged with all stakeholders, industry, colleges, higher education establishments, professional lead bodies and existing learners to ensure a full and detailed review was established and achieved. The Outcome of the review identified Units within the framework that were in need of minor updates and new Units which should be added and would be beneficial to the framework by meeting the needs of employers and the learners alike. This document covers the revised qualifications and is reflective of the findings of the detailed research that was undertaken during the review process.

The Computer Aided Architectural Design and Technology qualifications could be delivered on a full-time, part-time or day/block release basis.

The qualifications are aimed at learners wishing to pursue a career working in the construction sector as an Architectural Technician/Technologist, or wishing to upgrade and/or broaden their existing skills set. This could include:

- School leavers
- Learners studying related subject areas such as engineering, construction and design related disciplines at NC level
- Adult returners to education
- Learners in employment who wish to enhance their career prospects
- People changing direction/seeking a career change
- Part-time learners wishing to broaden skills and knowledge

Learners could also be employed as CAD: Technicians or Junior Designers within the construction and engineering sectors.

These qualifications continue to provide successful learners with a platform to progress towards professional status. Learners studying towards these qualifications may seek to become student members of the Chartered Institute of Architectural Technologists (CIAT). On completion of the award learners may choose to apply for Technician Member CIAT (TCIAT), Associate Member CIAT (ACIAT) or full Member CIAT (MCIAT).

2 Qualifications structure

2.1 Structure — HNC Computer Aided Architectural Design and Technology

This HNC Group Award is made up of 12 SQA Unit credits. It comprises 96 SCQF credit points of which 80 are at SCQF level 7 in the mandatory section including a Graded Unit of 8 SCQF credit points at SCQF level 7. The remaining 16 SCQF credit points required for the Group Award are to be selected from the optional section. A mapping of Core Skills development opportunities is available in Section 5.3.

4 code	2 code	Unit title	SCQF level	SCQF credit points	SQA credit
Mandatory Units					
F32A	34	Architectural CADT: Principles and Practice	7	16	2
F329	34	Architectural CADT: Residential Design	7	16	2
F3G5	34	Architectural CADT: Construction Detailing	7	8	1
HE28	34	CAD: User Systems	7	8	1
F39F	34	Architectural Professional Practice: Design Management	7	8	1
F39H	34	Architecture: Form, Order and Composition	7	16	2
HE6C	34	Computer Aided Architectural Design and Technology: Graded Unit 1	7	8	1
Optional Units: 2 SQA Unit credits required (16 SCQF credit points)					
DW3W	34	Statutory Control of Buildings	7	8	1
H72F	34	Site Administration	7	8	1
DE3R	34	Personal Development Planning	7	8	1
DW18	34	CAD: Visualisation, Rendering and Presentation	7	8	1
F3SG	34	History of Architecture	7	8	1
F39G	34	Computer Aided Architectural Design and Technology: Model Making	7	8	1
H726	34	Building Measurement and Cost Studies	7	8	1
DW5H	34	Construction Site Surveying A	7	8	1
F3J5	34	Architectural CADT: Building Technologies	7	8	1
F3SH	34	Architectural CADT: Building Systems and Services	7	8	1

4 code	2 code	Unit title	SCQF level	SCQF credit points	SQA credit
Optional Units (continued)					
HE2F	34	Building Information Modelling (BIM): Residential Project	7	8	1
HE2G	34	Building Information Modelling (BIM): Principles	7	8	1
HE2H	35	CAD: Digital Collaboration Practices	8	16	2
HE66	33	Autodesk Certified User: Revit	6	8	1

2.2 Structure — HND Computer Aided Architectural Design and Technology

This HND Group Award is made up of 30 SQA Unit credits. It comprises 240 SCQF credit points of which 104 are at SCQF level 7 and 72 are at SCQF level 8 in the mandatory section, this includes a Graded Unit of 8 SCQF credit points at SCQF level 7 and a Graded Unit of 16 SCQF credit points at SCQF level 8. The remaining 64 SCQF credit points required for the Group Award are to be selected from the optional section. A mapping of Core Skills development opportunities is available in Section 5.3.

4 code	2 code	Unit title	SCQF level	SCQF credit points	SQA credit
Mandatory Units					
F32A	34	Architectural CADT: Principles and Practice	7	16	2
F329	34	Architectural CADT: Residential Design	7	16	2
F39H	34	Architecture: Form, Order and Composition	7	16	2
F39F	34	Architectural Professional Practice: Design Management	7	8	1
DW3W	34	Statutory Control of Buildings	7	8	1
DW18	34	CAD: Visualisation, Rendering and Presentation	7	8	1
HE28	34	CAD: User Systems	7	8	1
F3G5	34	Architectural CADT: Construction Detailing	7	8	1
HE6C	34	Computer Aided Architectural Design and Technology: Graded Unit 1	7	8	1
F4NJ	35	Architectural CADT: Structural Design and Detailing	8	16	2
F4NH	35	Architectural CADT: Commercial Building Systems	8	16	2
F4NF	35	Architectural CADT: Advanced Digital Media	8	8	1

4 code	2 code	Unit title	SCQF level	SCQF credit points	SQA credit
HE2E	35	Building Information Modelling (BIM): Building Science	8	8	1
J50R	35*	Conversion and Adaptation of Buildings	8	8	1
H72F	34	Site Administration	7	8	1
HE6D	35	Computer Aided Architectural Design and Technology: Graded Unit 2	8	16	2
Optional Units: 8 SQA Unit credits required (64 SCQF credit points)					
F3J5	34	Architectural CADT: Building Technologies	7	8	1
F3SH	34	Architectural CADT: Building Systems and Services	7	8	1
DW5H	34	Construction Site Surveying A	7	8	1
F39G	34	Computer Aided Architectural Design and Technology: Model Making	7	8	1
F3SG	34	History of Architecture	7	8	1
H726	34	Building Measurement and Cost Studies	7	8	1
DX07	34	Interior Design: Applied Practice	7	8	1
F4NG	35	Architectural CADT: Animation	8	8	1
F4NE	35	Architectural CADT: Urban Design	8	8	1
F4TF	35	Architectural CADT: Landscape Design	8	8	1
DW52	34	Building Maintenance Technology	7	8	1
J50N	35*	Fire Safety in Buildings	8	8	1
DE3R	34	Personal Development Planning	7	8	1
DW4J	35	Construction Planning	8	8	1
HE2F	34	Building Information Modelling (BIM): Residential Project	7	8	1
HE2G	34	Building Information Modelling (BIM): Principles	7	8	1
HE2H	35	CAD: Digital Collaboration Practices	8	16	2
HE66	33	Autodesk Certified User: Revit	6	8	1
HE67	35	Autodesk Certified Professional: Revit Architecture	8	16	2

3 Aims of the qualifications

The main aim of the HNC and HND CAADT Group Awards is to provide learners with the opportunity to develop a high level of CAD knowledge and skills, underpinned by a firm grasp of technical design knowledge relevant to Architectural Engineering and Construction (AEC) industries. Learners will develop knowledge and understanding of the design process and the stages of design where CAD skills can be exploited in the achievement of a desirable design solution, and the production of digital design solutions in the solving of technical problems for architecture and construction.

In addition, the HND CAADT Group Award is specifically tailored at providing learners with opportunities to gain knowledge and skills sets appropriate to more formal recognition as an Architectural Technician and to provide pathways with governing institutions, primarily CIAT, to formalise professional status and achieve recognition for academic achievement.

The aims of the qualifications have been split into general aims and specific aims.

3.1 General aims of the qualifications

1 To develop knowledge, understanding and skills across a range of core Architectural CAD principles and technologies at Higher National level.

2 To develop a range of communication and information technology knowledge and skills relevant to the needs of Architectural CAD specialists.

3 To develop knowledge, understanding and skills in applying a structured approach to advanced Architectural CAD principles in the production of complex drawings, particularly as they apply to more sophisticated design projects relative to the professional activities of the qualified Architectural Technician.

4 To develop an ability to apply analysis and synthesis to the solution of Architectural CAD related problems, particularly as they apply to more sophisticated design projects relative to the professional activities of the qualified Architectural Technician.

5 To develop skills of study, research, analysis and resource management.

6 To develop skills of evaluation, organisation and problem solving.

7 To develop responsibility for individual learning and progression.

8 To develop skills, knowledge and motivation towards progression to higher education routes.

9 To develop key skills for employability while building on previously acquired transferable skills which that could allow progression within the SCQF (Scottish Credit and Qualification Framework) or lead to employment.

10 To support learners' continuing professional development and career development.

3.2 Specific aims of the qualifications

11 To prepare learners for employment as Architectural Technicians in private or public practice, working with a range of associated professional disciplines.

12 To prepare learners with a range of the most contemporary vocational skills, including the preparation, co-ordination and communication of technical information relevant to the Architectural industry, using the most advanced CAD and IT platforms available.

13 To provide learners with underpinning knowledge and skills contributing to the efficient operation and management of architectural design projects through control of specified regulatory, quality or management standards.

14 To provide opportunities for learners to achieve appropriate professional recognition, particularly, but not exclusively, with the Chartered Institute of Architectural Technology (CIAT).

15 To provide an award that, on successful completion, will allow learners to progress to appropriate degree level programmes.

16 To provide learners with the opportunity to develop knowledge and skills in the use of Building Information Modelling (BIM).

17 To develop contextual computer-aided design knowledge, understanding and skills in the resolution of core Architectural and Construction design problems.

18 To allow a degree of flexibility within subject specific disciplines, such as Building Services, History and Conservation, Construction Management.

19 To provide learners with the opportunity to develop knowledge and skills in the process of design collaboration.

20 To provide an opportunity to achieve industry recognised vendor qualifications.

3.3 Graded Units

There are two Computer Aided Architectural Design and Technology Graded Units:

Computer Aided Architectural Design and Technology: Graded Unit 1
1 SQA Unit credit 8 SCQF points at SCQF level 7

Computer Aided Architectural Design and Technology: Graded Unit 2
2 SQA Unit credits 16 SCQF points at SCQF level 8

Both *Graded Unit 1 and 2* are project based and are designed to test the knowledge and skills across the Units of the qualification within a context reflective of industry practice. The tasks are designed to assess the knowledge and skills gained from studying the mandatory Units within the framework. Learners are challenged to demonstrate that they can recall, apply and integrate the knowledge and skills gained during their studies.

Graded Unit 2, delivered in Year 2 of the HND qualification will be broader and deeper in the assessment of knowledge and skills across the Units of the qualification.

Further to the development of technical knowledge and skills assessed in the Graded Units, the learners through the tasks set will further enhance and develop essential skills and attributes that are deemed desirable for employment. These essential skills should include, planning and organising, working to deadlines and time management.

4 Recommended entry to the qualifications

Entry to the qualifications is at the discretion of the centre. The following information on prior knowledge, skills, experience or qualifications that provide suitable preparation for this qualification has been provided by the Qualification Design Team as guidance only.

Learners would benefit from having attained the skills, knowledge and understanding required by one or more of the following or equivalent qualifications and/or experience:

Formal Qualifications considered suitable for access to HNC or HND Year 1

Learners who enter with at least one of the following qualifications are likely to benefit more readily from the programme:

- NC or HNC in a related discipline, these could include but not limited to the NC Computer Aided Design and Technology, NC Built Environment, NC in an Engineering discipline or HNC Construction.
- at least one Higher level pass, with appropriate supporting passes at Standard Grade Credit/National 5 or equivalent in appropriate subjects, desirably this would include Maths, English, Product Design, Graphic Communication and/or a Science subject.
- SVQ in Construction or Engineering related discipline.

Work Experience

Mature learners with suitable relevant work experience may be accepted for entry, or advanced entry; provided the enrolling centre believes that the learner is likely to benefit from undertaking the qualification(s). Centres may wish to use Core Skills profiling to assist them in this process.

4.1 Core Skills entry profile

The Core Skill entry profile provides a summary of the associated assessment activities that exemplify why a particular level has been recommended for this qualification. The information should be used to identify if additional learning support needs to be put in place for learners whose Core Skills profile is below the recommended entry level or whether learners should be encouraged to do an alternative level or learning programme.

Core Skill	Recommended SCQF entry profile	Associated assessment activities
Communication	5	Good communication skills will be required for learners doing these qualifications as they will need to research, analyse, report, and present technical data and documentation.
Numeracy	5	Good numerical skills will be required for learners doing these qualifications as they will need to a range of numerical skills for a range of draughting and design tasks. These tasks could include calculating dimensional geometry, tolerances, design calculations and costings.
Information and Communication Technology (ICT)	5	Good ICT skills are core to these qualifications. Learners will need a sound understanding of basic ICT as the foundation to use the systems to search online material for research purposes. Also, the creation of CAD, graphical and technical documentation for communication and presentation tasks.
Problem Solving	5	Critical thinking, planning and organisation, review and evaluation are fundamental to all elements of these qualifications. Learners will need to analyse and evaluate existing designs and or design briefs for the purpose of finding and/or creating a design solution.
Working with Others	4	Working as part of a team co-operatively is essential when progressing to industry. There are several opportunities throughout these qualifications for working with others to take place.

5 Additional benefits of the qualification in meeting employer needs

This qualification was designed to meet a specific purpose and what follows are details on how that purpose has been met through mapping of the Units to the aims of the qualification. Through meeting the aims, additional value has been achieved by linking the Unit standards with those defined in National Occupational Standards and/or trade/professional body requirements. In addition, significant opportunities exist for learners to develop the more generic skill, known as Core Skills through doing this qualification.

5.1 Mapping of qualification aims to Units

Code	Unit title	Aims																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F32A 34	Architectural CADT: Principles and Practice	X	X	X				X	X	X	X	X	X		X	X					
F329 34	Architectural CADT: Residential Design	X	X	X	X			X	X	X	X	X	X		X	X	X				
F39H 34	Architecture: Form, Order and Composition		X			X	X	X	X	X	X	X			X	X			X		
F39F 34	Architectural Professional Practice: Design Management		X			X	X	X	X	X	X	X		X	X	X			X		
DW3W 34	Statutory Control of Buildings		X			X	X	X	X	X	X	X		X	X	X			X		
DW18 34	CAD: Visualisation, Rendering and Presentation	X	X	X				X	X	X	X	X	X		X	X					
HE28 34	CAD: User Systems	X	X					X	X	X	X	X	X		X	X					
F3G5 34	Architectural CADT: Construction Detailing	X	X	X	X	X		X	X	X	X	X	X		X	X		X			
HE6C 34	Computer Aided Architectural Design and Technology: Graded Unit 1	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		

Code	Unit title	Aims																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F4NJ 35	Architectural CADT: Structural Design and Detailing	X	X	X	X	X		X	X	X	X	X	X		X	X		X			
F4NH 35	Architectural CADT: Commercial Building Systems	X	X	X		X		X	X	X	X	X	X		X	X		X			
F4NF 35	Architectural CADT: Advanced Digital Media	X	X	X		X		X	X	X	X	X	X		X	X		X			
DW3T 35	Conversion and Adaptation of Buildings	X	X	X	X	X		X	X	X	X	X		X	X	X		X	X		
DE3R 34	Personal Development Planning		X				X	X	X	X	X	X		X	X	X					
H72F 34	Site Administration		X			X	X	X	X	X	X	X		X	X	X					
HE6D 35	Computer Aided Architectural Design and Technology: Graded Unit 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
F3J5 34	Architectural CADT: Building Technologies	X	X	X	X	X		X	X	X	X	X	X		X	X		X			
F3SH 34	Architectural CADT: Building Systems and Services	X	X	X	X	X		X	X	X	X	X	X		X	X		X	X		
DW5H 34	Construction Site Surveying A		X		X	X		X	X	X	X	X		X	X	X			X		

Code	Unit title	Aims																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F39G 34	Computer Aided Architectural Design and Technology: Model Making		X		X	X		X	X	X	X	X			X	X					
F3SG 34	History of Architecture		X			X		X	X	X	X	X			X	X			X		
H726 34	Building Measurement and Cost Studies		X			X	X	X	X	X	X	X		X	X	X			X		
DX07 34	Interior Design: Applied Practice	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X			
F4NG 35	Architectural CADT: Animation	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X			
F4NE 35	Architectural CADT: Urban Design	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X			
F4TF 35	Architectural CADT: Landscape Design	X	X	X	X	X	X	X	X	X	X	X	X		X	X		X			
DW52 34	Building Maintenance Technology					X	X	X	X	X	X	X		X	X	X			X		
DW4X 35	Fire Safety in Buildings					X	X	X	X	X	X	X		X	X	X			X		
DW4J 35	Construction Planning					X	X	X	X	X	X	X		X	X	X			X		

Code	Unit title	Aims																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HE2E 35	Building Information Modelling (BIM): Building Science	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X	
HE2F 34	Building Information Modelling (BIM): Residential Project	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X	
HE2G 34	Building Information Modelling (BIM): Principles	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X	
HE2H 35	CAD: Digital Collaboration Practices	X	X	X			X	X	X	X	X	X	X		X	X	X			X	
HE66 33	Autodesk Certified User: Revit	X		X													X				X
HE67 35	Autodesk Certified Professional: Revit Architecture	X		X													X				X

5.2 Mapping of National Occupational Standards (NOS) and/or trade body standards

The following table provides an overview to the SQA Units within the HN Awards and there links to relevant National Occupational Standard. The Units listed cover elements of the underpinning knowledge identified within the NOS.

Code	Unit title	National Occupational Standard																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F32A 34	Architectural CADT: Principles and Practice																		X		
F329 34	Architectural CADT: Residential Design														X				X		
F39H 34	Architecture: Form, Order and Composition																				
F39F 34	Architectural Professional Practice: Design Management	X	X		X	X	X	X													
DW3W 34	Statutory Control of Buildings	X	X		X	X	X	X		X											
DW18 34	CAD: Visualisation, Rendering and Presentation																		X		
HE28 34	CAD: User Systems																				
F3G5 34	Architectural CADT: Construction Detailing										X		X						X		
HE6C 34	Computer Aided Architectural Design and Technology: Graded Unit 1	X			X			X		X	X		X		X	X	X		X		
F4NJ 35	Architectural CADT: Structural Design and Detailing	X											X		X				X		
F4NH 35	Architectural CADT: Commercial Building Systems	X											X		X				X		
F4NF 35	Architectural CADT: Advanced Digital Media												X						X		

Code	Unit title	National Occupational Standard																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DW3T 35	Conversion and Adaptation of Buildings	X		X	X	X	X	X			X								X		
DE3R 34	Personal Development Planning								X												
H72F 34	Site Administration		X		X			X													
HE6D 35	Computer Aided Architectural Design and Technology: Graded Unit 2							X		X	X		X		X	X	X		X		
F3J5 34	Architectural CADT: Building Technologies	X									X		X		X				X		
F3SH 34	Architectural CADT: Building Systems and Services	X								X	X		X		X				X		
DW5H 34	Construction Site Surveying A			X	X																
F39G 34	Computer Aided Architectural Design and Technology: Model Making																		X		
F3SG 34	History of Architecture																				
H726 34	Building Measurement and Cost Studies	X		X	X			X													
DX07 34	Interior Design: Applied Practice												X						X	X	
F4NG 35	Architectural CADT: Animation																		X		X
F4NE 35	Architectural CADT: Urban Design										X		X						X		

Code	Unit title	National Occupational Standard																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F4TF 35	Architectural CADT: Landscape Design										X		X						X		
DW52 34	Building Maintenance Technology	X	X	X	X						X						X				
DW4X 35	Fire Safety in Buildings	X	X		X						X						X				
DW4J 35	Construction Planning	X	X		X	X	X	X									X				
HE2E 35	Building Information Modelling (BIM): Building Science	X									X	X	X		X	X	X	X	X		
HE2F 34	Building Information Modelling (BIM): Residential Project	X				X		X		X	X	X	X		X	X	X	X	X		
HE2G 34	Building Information Modelling (BIM): Principles	X				X					X	X	X		X	X	X	X	X		
HE2H 35	CAD: Digital Collaboration Practices	X														X	X	X			

National Occupational Standard					
No	**NOS title**		**No**	**NOS title**	
1	COSBEDMC03:	Develop and agree detailed design information in built environment design management	7	COSBEDMO18:	Control projects in built environment design management
2	COSBEDMC04:	Develop and maintain professional relationships and practice in built environment design management	8	COSBEDMO20:	Develop self and other people in built environment design management
3	COSBEDMO09:	Conduct condition surveys in built environment design management	9	COSBEDMO22:	Assess and confirm project energy sources and mechanisms in built environment design management
4	COSBEDMO13:	Manage project information and document requirements in built environment design management	10	COSBEDMO23:	Produce and recommend integrated conservation, repair and maintenance solutions in built environment design management
5	COSBEDMO14:	Prepare specifications in built environment design management	11	COSBEDMO25:	Manage project building information modelling protocols in built environment design management
6	COSBEDMO17:	Prepare and agree forms of contract in built environment design management	12	COSBEDO01:	Produce and recommend detailed design solutions in built environment design
13	COSBEDPC01:	Direct design projects in the built environment	17	COSBIMD34.3:	Obtain and evaluate project feedback information and make improvements in a Building Information Modelling environment
14	COSBIMB55.4:	Integrate the design of fabric, services and systems in a Building Information Modelling environment	18	PROFFI410:	Create designs using CA
15	COSBIMD21.2:	Develop a schedule of work in a Building Information Modelling environment	19	PROFFI411	Design solutions to meet technical and ergonomic requirements for kitchen, bedroom and bathroom design

National Occupational Standard				
No	**NOS title**		**No**	**NOS title**
16	COSBIMD34.1:	Provide information and guidance to support use and maintenance planning of works and installations in a Building Information Modelling environment	20	SKSANIM15: Render 3D animation

5.3 Mapping of Core Skills development opportunities across the qualifications

Unit code	Unit title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
F32A 34	Architectural CADT: Principles and Practice			S6	S6	S6	S6	S6	S6	S6		
F329 34	Architectural CADT: Residential Design			S6	S6	S6	S6	S6		S6		
F39H 34	Architecture: Form, Order and Composition	S6	S6			S6	S6	S6	S6	S6		
F39F 34	Architectural Professional Practice: Design Management	S6	S6									
DW3W 34	Statutory Control of Buildings	S6	S6	S6	S6							
DW18 34	CAD: Visualisation, Rendering and Presentation	S6	S6					S6	S6	S6	S6	S6
HE28 34	CAD: User Systems	S6	S6	S6	S6	S6	S6					
F3G5 34	Architectural CADT: Construction Detailing	S6	S6	S6	S6	S6	S6	S6	S6	S6		

E — Embedded Core Skills
S — Signposted Core Skills

Unit code	Unit title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
HE6C 34	Computer Aided Architectural Design and Technology: Graded Unit 1	S6	S6	S6	S6	S6	S6	S6	S6	S6		
F4NJ 35	Architectural CADT: Structural Design and Detailing			S6	S6	S6	S6	S6	S6	S6		
F4NH 35	Architectural CADT: Commercial Building Systems			S6	S6	S6	S6	S6	S6	S6		
F4NF 35	Architectural CADT: Advanced Digital Media	S6	S6			S6	S6	S6	S6	S6		
DW3T 35	Conversion and Adaptation of Buildings	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6
DE3R 34	Personal Development Planning	S6	S6			S6	S6	S6	S6	S6		
H72F 34	Site Administration	S6	S6									

E — Embedded Core Skills
S — Signposted Core Skills

Unit code	Unit title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
HE6D 35	Computer Aided Architectural Design and Technology: Graded Unit 2	S6	S6	S6	S6	S6	S6	S6	S6	S6		
F3J5 34	Architectural CADT: Building Technologies			S6	S6	S6	S6	S6	S6	S6		
F3SH 34	Architectural CADT: Building Systems and Services			S6	S6	S6	S6	S6	S6	S6		
DW5H 34	Construction Site Surveying A	S6	S6	S6	S6			S6	S6	S6	S6	S6
F39G 34	Computer Aided Architectural Design and Technology: Model Making	S6	S6	S6	S6	S6	S6	S6	S6	S6	S5	S5
F3SG 34	History of Architecture	S6	S6			S6	S6				S6	S6
H726 34	Building Measurement and Cost Studies	S6	S6	S6	S6			S6				
DX07 34	Interior Design: Applied Practice			S6	S6			S6	S6	S6		
F4NG 35	Architectural CADT: Animation	S6	S6			S6	S6	S6	S6	S6		

E — Embedded Core Skills
S — Signposted Core Skills

Unit code	Unit title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
F4NE 35	Architectural CADT: Urban Design			S6	S6	S6	S6	S6	S6	S6		
F4TF 35	Architectural CADT: Landscape Design			S6	S6	S6	S6	S6	S6	S6		
DW52 34	Building Maintenance Technology	S6	S6					S6	S6	S6	S6	S6
DW4X 35	Fire Safety in Buildings	S6	S6	S6	S6	S6	S6	S6	S6	S6		
DW4J 35	Construction Planning	S6	S6	S6	S6	S6	S6	S6	S6	S6		
HE2E 35	Building Information Modelling (BIM): Building Science	S6	S6	S6	S6	S6	S6	S6	S6	S6		
HE2F 34	Building Information Modelling (BIM): Residential Project	S6	S6	S6	S6	S6	S6	S6	S6	S6		
HE2G 34	Building Information Modelling (BIM): Principles	S6	S6									
HE2H 35	CAD: Digital Collaboration Practices	S6	S6								S6	S6

E — Embedded Core Skills
S — Signposted Core Skills

5.4 Assessment Strategy for the qualifications

<table>
<tr><th colspan="2" rowspan="2">Unit</th><th colspan="5">Assessment</th></tr>
<tr><th>Outcome 1</th><th>Outcome 2</th><th>Outcome 3</th><th>Outcome 4</th><th>Outcome 5</th></tr>
<tr><td>F32A 34</td><td>Architectural CADT: Principles and Practice</td><td>The explanation of architectural CAD drawing types for this Outcome is a closed-book assessment and must be supervised and held under controlled conditions.

Practical evidence for Outcome 1 should be generated under open-book supervised conditions.</td><td colspan="3">Outcomes 2, 3 and 4 could be delivered and assessed holistically with the creation of a continuing progressive assessment process. Each Outcome must be completed before moving to the next. This assessment could be in the form of a project based activity with each Outcome identified as a milestone towards completion.</td><td></td></tr>
<tr><td>F329 34</td><td>Architectural CADT: Residential Design</td><td colspan="4">Outcomes 1, 2, 3, 4 and 5 could be delivered and assessed holistically with the creation of a continuing progressive assessment process. Each Outcome must be completed before moving to the next. This assessment could be in the form of a project based activity with each Outcome identified as a milestone towards completion. Evidence should be generated under open-book supervised conditions.</td><td></td></tr>
<tr><td>F39H 34</td><td>Architecture: Form, Order and Composition</td><td>Written and/or oral recorded evidence generated under open-book supervised conditions.</td><td>Written and/or oral recorded evidence generated under open-book supervised conditions.</td><td colspan="2">Outcomes 3 and 4 could be delivered holistically. The open-book supervised assessment could be in the form of a project based activity.</td><td></td></tr>
</table>

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
F39F 34	Architectural Professional Practice: Design Management	An integrated assessment approach for all Outcomes is recommended. This could consist of a closed-book examination, conducted under controlled, supervised conditions. Such an examination could contain a combination of short answer, restricted and extended response questions and an assessment time of no more than 3 hours should be sufficient for the learner to generate all evidence.				
DW3W 34	Statutory Control of Buildings	It is possible to assess learners either on an individual Outcome basis, combinations of Outcomes or by a single holistic assessment combining all Outcomes. The assessment paper/s should be composed of an appropriate balance of short answer, restricted response and structured questions. Assessment should be conducted under supervised, controlled conditions. A single assessment covering all Outcomes should not exceed 2 hours in duration. Learners must achieve all the minimum evidence specified for each Outcome in order to pass this Unit.				
DW18 34	CAD: Visualisation, Rendering and Presentation	Outcomes 1, 2 and 3 could be delivered and assessed holistically with the creation of one integrated open-book supervised assessment. This assessment would be in the form of a project based activity.				
HE28 34	CAD: User Systems	Practical evidence with written and/or oral recorded element generated under open-book supervised conditions.	Practical evidence generated under open-book supervised conditions.	Practical evidence generated under open-book supervised conditions.	Practical evidence generated under open-book supervised conditions.	

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
F3G5 34	Architectural CADT: Construction Detailing	Assessment for this Unit could be delivered as individual assessment tasks or could be integrated into one single assessment covering all Outcomes. Different building types or project briefs could be used for separate Outcome tasks.				
HE6C 34	Computer Aided Architectural Design and Technology: Graded Unit 1	Project based Graded Unit assessment.				
F4NJ 35	Architectural CADT: Structural Design and Detailing	Assessment for this Unit could be delivered as individual assessment tasks or could be integrated into one single assessment covering all Outcomes.				
F4NH 35	Architectural CADT: Commercial Building Systems	Assessment for this Unit could be delivered as individual assessment events or could be integrated into one single assessment covering all Outcomes. Different building types or project briefs could be used for separate Outcome tasks. If assessment is conducted using an integrated approach, it is recommended that building project brief guidelines should be provided based on contemporary design in significant, specialist, commercial building types and a project driven approach to the development of solutions adopted. Suitable building types could include, but not be limited to, commercial office buildings, colleges and universities, shopping malls, or other.				
F4NF 35	Architectural CADT: Advanced Digital Media	Assessment for this Unit could be delivered as one single project based assessment covering all four Outcomes. Industry practice should be reflected wherever possible, so learners should be encouraged to plan the visualisation of the designs thoroughly before commencing any practical activities for the assessments; this could be through the use of sketches, storyboards, a log or similar.				

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
DW3T 34	Conversion and Adaptation of Buildings	Where possible, a site/s should be selected which would allow group working and which include an existing building. All Outcomes should be assessed in relation to the site identified. Outcome 1 requires the development of a technical report on the condition of the existing building with recommendations for 'making good'. Outcome 2 is the preparation of drawings of the existing site, including the building, showing boundaries and existing features to identify design constraints and sketched proposals. Outcome 3 should provide outline scheme design drawings showing the proposed extension and/or adaptation including proposals for 'making good'. Outcome 4 requires the preparation of a part-set of working drawings with specifications and dimensions to show how the proposals could be implemented.				
DE3R 34	Personal Development Planning	The Unit should be assessed holistically. To achieve this a learner should create, maintain and present a portfolio of evidence — a personal development portfolio. The activities associated with the Unit should provide ample opportunities for learners to generate and gather the required evidence of achievement.				

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
H72F 34	Site Administration	Practical assessment supported with a Written or oral recorded report in open-book supervised conditions.	Written or oral recorded assessment in open-book supervised conditions.	Participation in a simulated formal meeting. Learners will be required to produce an individual record of this meeting in the form of minutes and an agenda. Visual evidence should also be collected for this assessment by ensuring a recording is made of the meeting.	The assessment for this Outcome will be generated by a task which contains a mixture of short answer, restricted response and structured questions. The assessment should be conducted under closed-book conditions	
HE6D 35	Computer Aided Architectural Design and Technology: Graded Unit 2	Project based Graded Unit assessment.				
F3J5 34	Architectural CADT: Building Technologies	Assessment for this Unit could be delivered by assessment events on an Outcome by-Outcome basis, or by combining elements of Outcomes, or by one single holistic assessment covering all Outcomes. If assessment is conducted using a holistic approach, it is recommended that a project driven approach to the development of solutions is used by centres.				
F3SH 34	Architectural CADT: Building Systems and Services	Assessment for this Unit could be delivered by assessment events on an Outcome by-Outcome basis, or by combining elements of Outcomes, or by one single holistic assessment covering all Outcomes. If assessment is conducted using a holistic approach, it is recommended that a project driven approach to the development of solutions is used by centres.				

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
DW5H 34	Construction Site Surveying A	It is possible to assess learners on an individual Outcome basis, or by combinations of Outcomes. Assessment should be conducted under supervised conditions. The assessment(s) of Outcome 1 should consist of an appropriate balance of short answer, restricted response and structured questions in open-book format. The assessment of Outcomes 2, 3 and 4 involves practical field surveys in groups with subsequent work done individually.				
F39G 34	Computer Aided Architectural Design and Technology: Model Making	Outcomes 1 and 2 require evidence of practical competence and explanatory evidence, whilst Outcome 3 is a practical assignment. Outcomes 2 and 3 could be assessed individually, or if the same modelling details are developed, the modelling tasks for both these Outcomes could be assessed using one integrated assessment project. All Outcomes should be conducted under controlled, supervised conditions.				
F3SG 34	History of Architecture	Both Outcomes require a documented response and a practical task. There are opportunities for a combined assessment across the practical assignments for both Outcomes, and individual centres may choose to exploit these opportunities as centre demands dictate. Much of the evidence required in the production of the assessments could be generated by learners out with the normal confines of the centre.				
H726 34	Building Measurement and Cost Studies	Written or oral recorded evidence generated open-book supervised conditions.	The assessment for Outcomes 2 and 3 could be combined. Written and/or oral recorded evidence generated under open-book supervised conditions.			

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
DX07 34	Interior Design: Applied Practice	Outcomes 1, 2 and 3 could be delivered and assessed holistically with the creation of a continuing progressive assessment process. Each Outcome must be completed before moving to the next. This assessment could be in the form of a project based activity with each Outcome identified as a milestone towards completion.				
F4NG 34	Architectural CADT: Animation	Assessment for this Unit could be delivered as one single project based assessment covering both Outcomes. Industry practice should be reflected wherever possible, such as; learners should be encouraged to plan the visualisation of the designs thoroughly before commencing any practical activities for the assessments, this could be through the use of sketches, storyboards, a log or similar.				
F4NE 34	Architectural CADT: Urban Design	A suitable brief for a modestly sized, urban development project could be provided at the outset of assessment activity, and used throughout all assessment tasks. Assessment for this Unit could be delivered as individual assessment events or could be integrated into one single assessment covering all Outcomes. If assessment is conducted using an integrated approach, it is recommended that the solutions reached and presented be in the form of a holistic portfolio of CAD details and graphics, with clear recommendations. This approach would match very closely to industry practice. Learners should produce the Evidence Requirements using CAD packages and supported by fully annotated and referenced drawings.				

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
F4TF 35	Architectural CADT: Landscape Design	A suitable brief for a modest landscaping project could be provided by the assessor at the outset of assessment activity, and used throughout all assessment tasks. Assessment for this Unit could be delivered as individual assessment events or could be integrated into one single assessment covering all Outcomes. If assessment is conducted using an integrated approach, it is recommended that the solutions reached and presented be in the form of a holistic portfolio of CAD details and graphics, with clear recommendations. This approach would match very closely to industry practice. Learners should produce the Evidence Requirements using CAD packages and supported by fully annotated and referenced drawings.				
DW52 34	Building Maintenance Technology	Written or oral recorded evidence generated under open-book supervised conditions.	Written or oral recorded evidence generated under open-book conditions.			
DW4X 35	Fire Safety in Buildings	It is possible to assess learners either on an individual Outcome basis, combinations of Outcomes or by a single holistic assessment combining all Outcomes. The assessment paper/s could be composed of an appropriate balance of short answer, restricted response and structured questions. Assessment should be conducted under supervised, controlled conditions. A single assessment covering all Outcomes should not exceed 3 hours in duration.				

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
DW4J 35	Construction Planning	There are three Outcomes of which the first will assess the learners knowledge and understanding of the techniques used to programme construction projects. Outcome 2 will develop and build on what has been achieved in the first Outcome and utilise project management software to prepare programmes and schedules, while Outcome 3 will be assessed by preparation of a method statement for a "small" construction project. HN Unit (DW4J 35): Construction Planning 1. It is possible to assess learners either on an individual Outcome basis, combinations of Outcomes or by a single holistic assessment combining all Outcomes. The assessment paper/s should be composed of an appropriate balance of short answer, restricted response and structured questions. Assessment should be conducted under supervised controlled conditions. A single assessment covering all Outcomes should not exceed three hours in duration.				
HE2E 35	Building Information Modelling (BIM): Building Science	Assessment for this Unit could be undertaken as a case study to analyse a building, in terms of energy usage and to make recommendations for improvements in energy efficiency. Assessment for this Unit requires learners to use industry-standard software, to analyse a building in terms of its energy performance. The final output will be a report to a client, thus all assessments are inter-related and sequential in nature, in that the activities and results from one Outcome are integrated and progressed in the subsequent Outcome assessment. Evidence for all Outcomes will be generated under controlled, supervised open-book conditions. Learners will be allowed access to course material, textbooks, the internet and the Help files associated to the software used. All evidence must be generated during the assessment period.				

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
HE2F 34	Building Information Modelling (BIM): Residential Project	Assessment for this Unit could be undertaken holistically as a design project, using BIM procedures to progress the model from the design stage, to the project planning and costing stages. Although the Unit could be assessed holistically, it is recommended there should be four formal assessment events, corresponding to the four Outcomes, to be taken by learners at agreed points, determined by the lecturer. Evidence for all Outcomes will be generated under controlled, supervised open-book conditions. Learners will be allowed access to course material, text books, the internet and the Help files associated to the software used. All evidence must be generated during the assessment period and all attributable material must be referenced using a recognised referencing system.				
HE2G 34	Building Information Modelling (BIM): Principles	All Outcomes could be assessed by means of a series of short answers to structured questions, a formal report or a presentation addressing all components of the Knowledge and/or Skills. Use of a case study would allow centres to integrate all Outcomes into a whole or combination of Outcomes. Assessments should be carried out in supervised, controlled, open-book conditions. Learners should be allowed to refer to relevant course material. There may be opportunity for investigations to be conducted by groups, however any individual work produced for assessment should be authenticated through turnitin or similar resources.				

Unit		Assessment				
		Outcome 1	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**
HE2H 35	CAD: Digital Collaboration Practices	Outcome 1 could be assessed by means of a series of short answers to structured questions, a formal report or a presentation addressing all components of the Knowledge and/or Skills. Evidence should be generated under controlled, supervised open-book conditions.	Use of a case study would allow centres to integrate Outcomes 2, 3 and 4 into a whole or combination of Outcomes. Assessments should be carried out in controlled, supervised, open-book conditions. Learners should be allowed to refer to relevant course material as well as current standards such as British Standards/Publicly Available Standards. There may be opportunity for investigations to be conducted by groups, however any individual written or presented work produced for assessment should be authenticated.			

6 Guidance on approaches to delivery and assessment

The HNC and HND Computer Aided Architectural Design and Technology qualifications aim to give learners the opportunity to develop industry relevant CAD skills and knowledge of the design process related to the AEC sector. Learners who choose to study these qualifications would be aiming to become Architectural Technicians/Technologists with high end CAD skills

Each of the qualifications has relevant Unit specifications that provide detailed guidance for the Evidence Requirements and assessment procedures for each assessment event. Where possible and appropriate, integrated assessments should be used to provide a more holistic approach to assessing the learners. Suggestion as to where integration of assessment could be achieved is given in Section 5.4 Assessment Strategy for the qualifications.

Assessment Support Packs (ASPs) have been produced for mandatory Units. Centres can use the ASPs for assessment purposes as long as they are kept secure. Centres may use the ASPs as a guide and/or template for producing locally devised assessments.

The following section gives suggested sequence of Unit delivery for the HNC and HND.

6.1 Sequencing/integration of Units

HNC/HND Year 1 Computer Aided Architectural Design and Technology					
Suggested sequencing of delivery					
Semester 1			**Semester 2**		
Unit code	**Unit title**	**SQA credit**	**Unit Code**	**Unit title**	**SQA credit**
HE28 34	CAD: User Systems	1	DW18 34	CAD: Visualisation, Rendering and Presentation	1
F32A 34	Architectural CADT: Principles and Practice	2	F39G 34	Computer Aided Architectural Design and Technology: Model Making	1
F329 34	Architectural CADT: Residential Design	2	F3SH 34	Architectural CADT: Building Systems and Services	1
F39H 34	Architecture: Form, Order and Composition	2	DW3W 34	Statutory Control of Buildings	1
			F39F 34	Architectural Professional Practice: Design Management	1
			HE6C 34	Computer Aided Architectural Design and Technology: Graded Unit 1	1
			F3J5 34	Architectural CADT: Building Technologies	1
			F3G5 34	Architectural CADT: Construction Detailing	1
	Total SQA Credits	**7**		**Total SQA Credits**	**8**

HND Year 2 Computer Aided Architectural Design and Technology					
Suggested sequencing of delivery					
Semester 1			**Semester 2**		
Unit code	**Unit title**	**SQA credit**	**Unit code**	**Unit title**	**SQA credit**
DE3R 34	Personal Development Planning	1	HE6D 35	Computer Aided Architectural Design and Technology: Graded Unit 2	2
DW3T 35	Conversion and Adaptation of Buildings	1	F4NF 35	Architectural CADT: Advanced Digital Media	1
HE2E 35	Building Information Modelling (BIM): Building Science 1	1	F4NG 35	Architectural CADT: Animation	1
F4NH 35	Architectural CADT: Commercial Building Systems	2	H72F 34	Site Administration	1
F4NJ 35	Architectural CADT: Structural Design and Detailing	2	F3SG 34	History of Architecture	1
F4TF 35	Architectural CADT: Landscape Design	1	DX07 34	Interior Design: Applied Practice	1
	Total SQA Credits	**8**		**Total SQA Credits**	**7**

6.2 Recognition of Prior Learning

SQA recognises that learners gain knowledge and skills acquired through formal, non-formal and informal learning contexts.

In some instances, a full Group Award may be achieved through the recognition of prior learning. However, it is unlikely that a learner would have the appropriate prior learning and experience to meet all the requirements of a full Group Award.

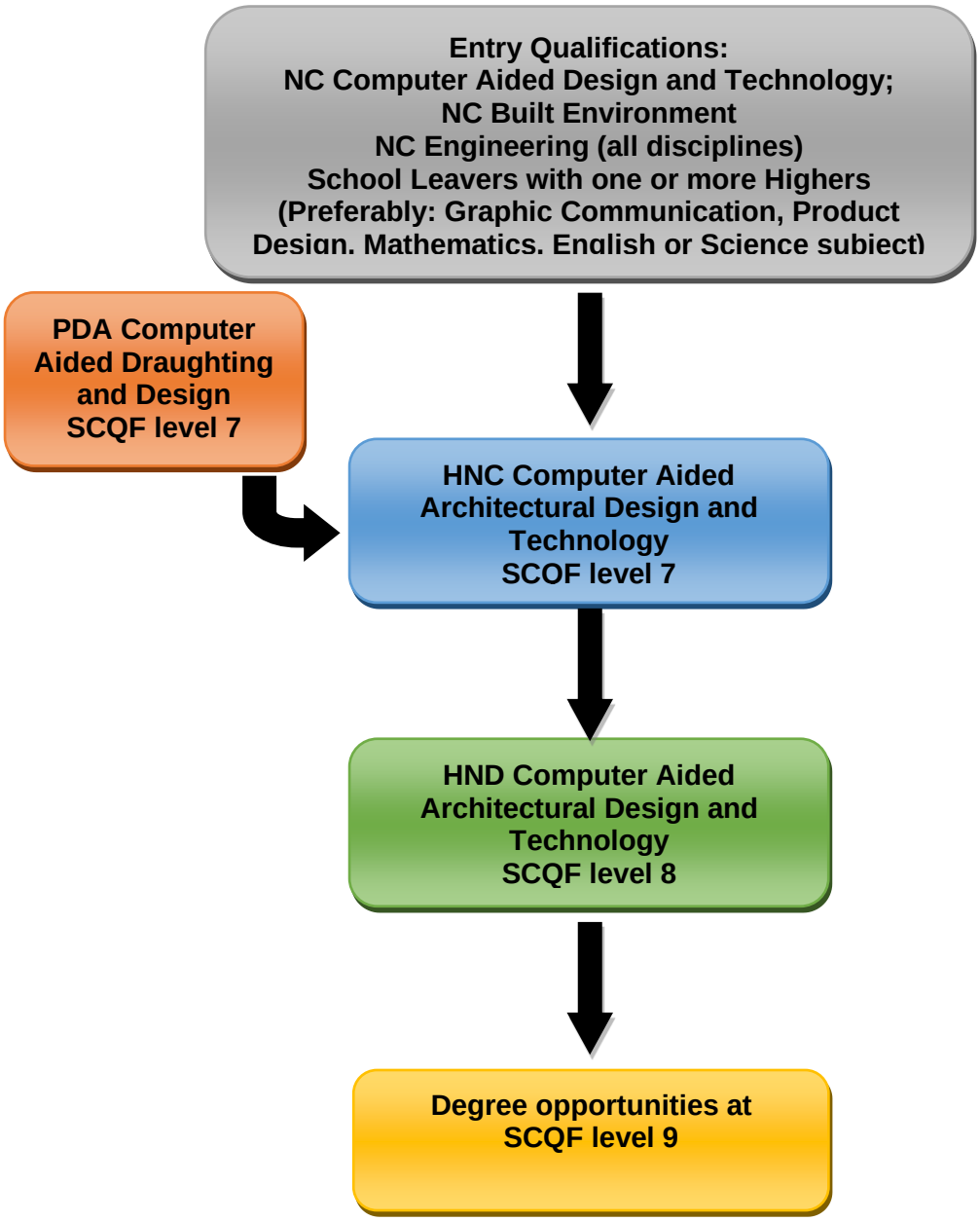
The recognition of prior learning may **not** be used as a method of assessing in the following types of Units and assessments:

- HN Graded Units
- Course and/or external assessments
- Other integrative assessment Units (which may or not be graded)
- Certain types of assessment instruments where the standard may be compromised by not using the same assessment method outlined in the Unit
- Where there is an existing requirement for a licence to practice
- Where there are specific health and safety requirements
- Where there are regulatory, professional or other statutory requirements
- Where otherwise specified in an Assessment Strategy

More information and guidance on the *Recognition of Prior Learning* (RPL) may be found on our website **www.sqa.org.uk**.

The following sub-sections outline how existing SQA Unit(s) may contribute to this Group Award. Additionally, they also outline how this Group Award may be recognised for professional and articulation purposes.

6.2.1 Articulation and/or progression



There are opportunities to progress from HND to University. At present, those students who successfully complete the HND progress onto the following degree programmes:

- BSc (Hons) Architectural Technology (Entry Year 3) University of Highlands and Islands (Inverness)
- BSc (Hons) Engineering Management (Entry Year 2) Napier University

6.2.2 Professional recognition

The Higher National qualifications in Computer Aided Architectural Design and Technology have been developed to facilitate the career progression of the learners to achieve professional status in the future. Whilst studying on the awards, learners can apply to become student members of the Chartered Institute of Architectural Technologists (CIAT). On completion of the award, learners can apply to become Technician Member CIAT (TCIAT), Associate Member CIAT (ACIAT) or full Member CIAT (MCIAT).

As with most professional bodies, CIAT provide recognition of HNC and HND awards against their educational requirements for membership. Professional body membership requires a combination of the educational base and verification of professional experience.

6.2.3 Transitional Arrangements

The HNC Computer Aided Architectural Design and Technology legacy qualification (G90K 15) will finish on 31/07/2019.

The HND Computer Aided Architectural Design and Technology legacy qualification (G95E 16) will finish on 31/07/2020.

It is recommended that learners who are in the process of completing one of the predecessor qualifications finish it rather than switching to the new, revised award. However, there may be occasions when it is not possible for learners to complete the existing award, eg where they were unable to complete their studies due to ill health or difficulties with funding or employment and where the centre has progressed to offer the new qualification and only one or two Units need to be completed. In these cases it is recommended that the suggested credit transfer arrangements given in Section 6.2.4 be considered.

6.2.4 Credit transfer

All decisions relating to credit transfer remain with centres. However, the table below provides details and guidance on credit transfer arrangements agreed by the Qualifications Development Team.

Centres must retain proof of all credit transfer arrangements (normally a photocopy of the learner's Scottish Qualifications Certificate) for the purposes of internal and external verification.

New Unit code	New Unit title	Old Unit code	Old Unit title	Credit transfer	Comments
H72F 34	Site Administration	DW4L 34	Site Administration	No	No automatic credit transfer
H726 34	Building Measurement and Cost Studies	DW3X 34	Building Measurement and Cost Studies	No	No automatic credit transfer
HE28 34	CAD: User Systems	DW14 34	CAD: User Systems	Yes	Full credit transfer

6.3 Opportunities for e-assessment

E-assessment may be appropriate for some elements in these qualifications. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence.

The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at **http://www.sqa.org.uk/sqa/68835.5665.html**.

6.4 Support materials

A **list of existing ASPs** is available to view on SQA's website.

6.5 Resource requirements

Staff involved in the delivery of these qualifications should be suitably qualified and skilled in the use of advanced level CAD for architectural design. Staff would be required to have good IT skills.

Centres delivering these qualifications would be required to have a high specification CAD facility with powerful CAD hardware and up to date industry CAD, animation and graphic design software. In addition, peripheral devices such as, printers, and large scale plotters should be readily available. Access to appropriate office based software for word processing, spreadsheets and databases is essential for delivery of the qualifications.

Access to the internet is essential for research purposes throughout the course, as well as, the delivery of the following Unit:

HE2H 35 *CAD: Digital Collaboration Practices*

It is recommended that appropriate journals, books, standards and e-books are sourced to support the learning and teaching process.

The Autodesk vendor qualifications that are embedded within the qualifications are accessed via Certiport online system. Any centre choosing to deliver the Autodesk Certified User or professional vendor qualifications as part of the framework will require access to Certiport online. Costs for sitting the online exams can be requested through the Certiport website and this is done on a centre by centre basis. Delivering centres are responsible for acquiring, setting-up and accessing system and online tests.

7 General information for centres

Equality and inclusion

The Unit specifications making up this Group Award have been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners will 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**.

Internal and external verification

All instruments of assessment used within this/these qualification(s) should be internally verified, using the appropriate policy within the centre and the guidelines set by SQA.

External verification will be carried out by SQA to ensure that internal assessment is within the national guidelines for these qualifications.

Further information on internal and external verification can be found in *SQA's Guide to Assessment* **(www.sqa.org.uk/GuideToAssessment)**.

8 Glossary of terms

Embedded Core Skills: is where the assessment evidence for the Unit also includes full evidence for complete Core Skill or Core Skill components. A learner successfully completing the Unit will be automatically certificated for the Core Skill. (This depends on the Unit having been successfully audited and validated for Core Skills certification.)

Finish date: The end of a Group Award's lapsing period is known as the finish date. After the finish date, the Group Award will no longer be live and the following applies:

- learners may not be entered for the Group Award
- the Group Award will continue to exist only as an archive record on the Awards Processing System (APS)

Graded Unit: Graded Units assess learners' ability to integrate what they have learned while working towards the Units of the Group Award. Their purpose is to add value to the Group Award, making it more than the sum of its parts, and to encourage learners to retain and adapt their skills and knowledge.

Lapsing date: When a Group Award is entered into its lapsing period, the following will apply:

- the Group Award will be deleted from the relevant catalogue
- the Group Award specification will remain until the qualification reaches its finish date at which point it will be removed from SQA's website and archived
- no new centres may be approved to offer the Group Award
- centres should only enter learners whom they expect to complete the Group Award during the defined lapsing period

SQA credit value: The credit value allocated to a Unit gives an indication of the contribution the Unit makes to an SQA Group Award. An SQA credit value of 1 given to an SQA Unit represents approximately 40 hours of programmed learning, teaching and assessment.

SCQF: The Scottish Credit and Qualification Framework (SCQF) provides the national common framework for describing all relevant programmes of learning and qualifications in Scotland. SCQF terminology is used throughout this guide to refer to credits and levels. For further information on the SCQF visit the SCQF website at **www.scqf.org.uk**.

SCQF credit points: SCQF credit points provide a means of describing and comparing the amount of learning that is required to complete a qualification at a given level of the Framework. One National Unit credit is equivalent to 6 SCQF credit points. One National Unit credit at Advanced Higher and one Higher National Unit credit (irrespective of level) is equivalent to 8 SCQF credit points.

SCQF levels: The level a qualification is assigned within the framework is an indication of how hard it is to achieve. The SCQF covers 12 levels of learning. HNCs and HNDs are available at SCQF levels 7 and 8 respectively. Higher National Units will normally be at levels 6–9 and Graded Units will be at level 7 and 8. National Qualification Group Awards are available at SCQF levels 2–6 and will normally be made up of National Units which are available from SCQF levels 2–7.

Subject Unit: Subject Units contain vocational/subject content and are designed to test a specific set of knowledge and skills.

Signposted Core Skills: refers to opportunities to develop Core Skills arise in learning and teaching but are not automatically certificated.

History of changes

It is anticipated that changes will take place during the life of the qualification and this section will record these changes. This document is the latest version and incorporates the changes summarised below. Centres are advised to check SQA's APS Navigator to confirm they are using the up to date qualification structure.

NOTE: Where a Unit is revised by another Unit:

- No new centres may be approved to offer the Unit which has been revised.
- Centres should only enter learners for the Unit which has been revised where they are expected to complete the Unit before its finish date.

Version Number	Description	Date
02	**Revision of Units**: DW4X 35 Fire Safety in Buildings (finish date 31/07/2021) has been replaced by J50N 35 Fire Safety in Buildings (start date 01/08/2020).DW3T 35 Conversion and Adaptation of Buildings (finish date 31/07/2021) has been replaced by J50R 35 Conversion and Adaptation of Buildings (start date 01/08/2020)	

Acknowledgement

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of this qualification.

9 General information for learners

This section will help you decide whether this is the qualification for you by explaining what the qualification is about, what you should know or be able to do before you start, what you will need to do during the qualification and opportunities for further learning and employment.

The Higher National Certificate (HNC) and Higher National Diploma (HND) in Computer Aided Architectural Design and Technology have been developed to give you the opportunity to acquire the practical skills and underpinning knowledge of architectural technology, as well as, the use of CAD for the production of 3-Dimensional (3D) architectural models and 2-Dimensional (2D) drawings. The course delivery is mainly based in a classroom using industry standard CAD technology.

Before commencing the course you should have an interest in architectural technology, building design, CAD, and design technology. A general level of IT skills would be beneficial, and good English and mathematics skills are desirable. Learners who have studied Graphic Communication and/or Product Design at school would see this course as a natural progression route.

The course aims to develop practical architectural CAD skills through the use of tutor led tutorials, projects and design activities. On occasion you may be required to work as part of a team to solve design problems and provide a suitable solution. You will be required to write/oral record and present researched information across most Units of the award.

Specific tasks will include the use of a CAD system to produce 2D drawings (site, location, floorplans and elevations), 3D architectural CAD models, 3D animated building walkthroughs, and technical illustrations. Other tasks that you may be asked to do could include, the production of physical prototypes (produced by hand and 3D printed), creation of hand drawn sketches, using mathematics skills to solve design problems and presenting final design solutions using traditional and technological processes.

On completion of the HNC you will have achieved 12 credits that can be used towards progressing onto the HND. Progression from one award to the next should be seamless. On completion of the HND award you may choose to progress onto a course of study at University or into industry.

The HNC and HND awards are aimed at learners who want to start or change their career and have a desire to move into building design as Architectural Technicians/Technologists. Employment opportunities also exist within the Architectural Engineering and Construction (AEC) sectors as CAD Technician and Junior Designers.

Individuals, who are studying towards the HND award and are interested in progressing to professional status, may choose to register as student members of the Chartered Institute of Architectural Technologists (CIAT). On completion of the award, learners can apply to become Technician Member CIAT (TCIAT), Associate Member CIAT (ACIAT) or full Member CIAT (MCIAT).