



## **Group Award Specification for:**

**National Certificate in Dental Technology: An Introduction at SCQF level 6**

**Group Award Code: GM56 46**

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# 1 Introduction

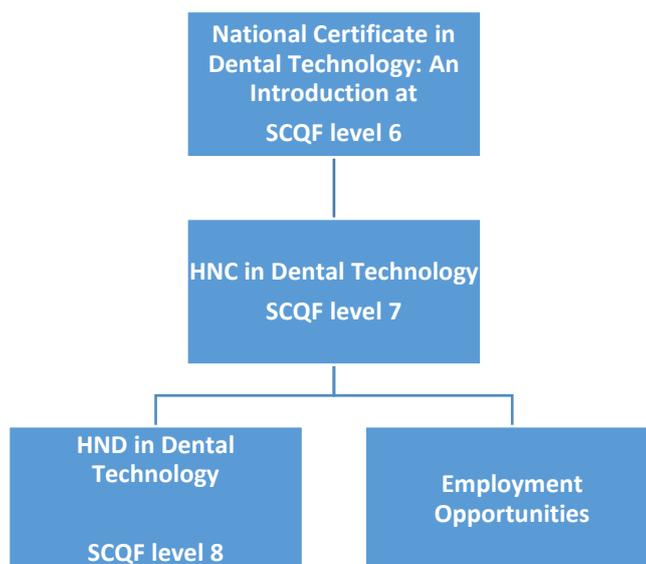
This document was previously known as the arrangements document. The purpose of this document is to:

- ◆ 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.

## Rationale for development

The National Certificate (NC) in Dental Technology: An Introduction at SCQF level 6 has been developed to provide a nationally certificated and quality assured qualification at a level appropriate for dental technologist trainees. A range of units have been produced which cover the knowledge, understanding and skills that trainees require to begin work with the status of 'safe beginners'.

The range of SQA qualifications leading to employment opportunities in the Dental Technology sector are displayed in the following table.



Previous SQA provision at the introductory level was comprised of a series of stand-alone NC Units which were originally validated in 1999. These units required to be updated and/or replaced to reflect changes in dental technology practice and emerging technologies, and to meet the GDC requirements as part of a registerable qualification. This work was completed in November 2016 resulting in the validation of a coherent range of 11 units relevant for trainee dental technologists.

The qualification is appropriate for those seeking to work at an entry level in the dental technology industry or perhaps for access to further education.

## 2 Qualification structure

This group award is made up of 12 SQA National Unit credits. It comprises 72 SCQF credit points all of which are at SCQF level 6. It is a wholly mandatory framework.

### 2.1 Structure

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
HK5P	46	Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment	1	6	6
HE3D	46	Dental Care Professionals: Fitness to Practice	1	6	6
HK6D	46	Dental Cast Production: An Introduction	1	6	6
HK6A	46	Dental Removable Appliances: An Introduction	2	12	6
HK5M	46	Dental Anatomy: An Introduction	0.5	3	6
HK5F	46	Dental Fixed Restorations: An Introduction	2	12	6
HK58	46	Dental Materials: An Introduction	1	6	6
HK5K	46	Dental Occlusion: An Introduction	1	6	6
HK6E	46	Dental Custom Trays	0.5	3	6
HK6F	46	Dental Record Blocks	1	6	6
HK6G	46	Dental Surveying	1	6	6
<b>Total</b>			<b>12</b>	<b>72</b>	

## 3 Aims of the qualification

### Primary aim of the qualification

This qualification is designed to provide learners with a nationally certificated and quality assured award which will develop their underpinning knowledge and skills in dental technology.

### 3.1 General aims of the qualification

- 1 To develop professional attitudes and high ethical standards in relation to patient treatment.
- 2 To develop effective communication and interpersonal skills.
- 3 To develop logical, analytical and problem-solving skills within the dental laboratory environment.
- 4 To ensure that learners have the standard of knowledge and competence that will enable them to function safely in a progressive oral health care team.
- 5 To develop transferable skills including Core Skills that will allow learners to function more effectively in the work place.
- 6 Develop transferable skills in time-management, study and research skills.
- 7 Enhance employment prospects.
- 8 Facilitate progression within the SCQF.

### 3.2 Specific aims of the qualification

- 1 To develop learners understanding of, and ability to, apply basic core procedures and practices related to the laboratory environment.
- 2 To ensure learners can accurately interpret and implement dental prescriptions.
- 3 To ensure learners can safely use a wide range of basic dental techniques and equipment.
- 4 To develop learners skills in producing various types of basic dental prosthesis and appliances.
- 5 To ensure learners understand and can use a wide range of dental materials effectively.
- 6 To ensure that learners understand the importance of implementing the key guidance and legislation relating to ethical practice, infection prevention and safe working.

## 4 Recommended entry to the qualification

Entry to this qualification 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:

- ◆ prior SQA units (or their equivalent) at SCQF level 4 or above, eg National 4 in a science related subject, or National 5 in Human Biology.
- ◆ successful completion of a locally devised entry course at SCQF level 4 or above.

## 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	4	Written and verbal summative assessment activities.
Numeracy	4	Understanding measurements and graphical data.
Information and Communication Technology (ICT)	4	Edinburgh College Moodle.
Problem Solving	4	Evaluation of products and completion of quality checklists.
Working with Others	4	Ability to develop both team and individual working relationships in the dental environment.

## 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 specific aims to units

Code	Unit title	Aims						
		1	2	3	4	5	6	7
HK5P 46	Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment		X		X	X	X	X
HE3D 46	Dental Care Professionals: Fitness to Practice	X	X		X		X	X
HK6D 46	Dental Cast Production: An Introduction	X	X	X	X	X	X	X
HK6A 46	Dental Removable Appliances: An Introduction	X	X	X	X	X	X	X
HK5M 46	Dental Anatomy: An Introduction	X	X	X				X
HK5F 46	Dental Fixed Restorations: An Introduction	X	X	X	X	X	X	X
HK5H 46	Dental Materials: An Introduction	X	X			X		X
HK5K 46	Dental Occlusion: An Introduction	X	X		X	X	X	X
HK6E 46	Dental Custom Trays	X	X		X	X	X	X
HK6F 46	Dental Record Blocks	X	X	X	X	X	X	X
HK6G 46	Dental Surveying	X	X	X	X	X	X	X

### Specific aims of the qualification

- 1 To develop learners understanding of, and ability to, safely apply basic core procedures and practices related to the laboratory environment.
- 2 To ensure learners can accurately interpret and implement dental prescriptions.
- 3 To ensure learners can safely use a wide range of basic dental techniques and equipment.
- 4 To develop learners skills in producing various types of basic dental prosthesis and appliances.
- 5 To ensure learners understand and can safely use a wide range of dental materials effectively.
- 6 To ensure that learners understand the importance of implementing the key guidance and legislation relating to ethical practice, infection prevention and safe working.

## 5.2 Mapping of General Dental Council (GDC) outcomes for dental technicians

The NC Units have been designed at an introductory level to underpin the GDC outcomes for registered dental technicians. Learners will not be expected to achieve complete outcomes at this level, but they will be introduced to key aspects of the outcomes relevant to their role and level of expertise to ensure they can work safely whilst under training.

Unit Code	Unit title	Clinical				Communication				Professionalism				Management and Leadership				
HK5P 46	Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment	1.1.4	1.8.1 1.8.2 1.8.3							7.1 7.2	9.4			12.1 12.2 12.5	10.7	12.5		
HE3D 46	Dental Care Professionals: Fitness to Practice	1.5.5	2.3			5.4				6.1 6.2 6.4	7.1 7.4	9.4		10.3	11.5	12.5		
HK6D 46	Dental Cast Production: An Introduction	1.1.2 1.1.4 1.1.5	1.8.1 1.8.2 1.8.3			5.1				7.1	9.4	10.2			10.7	12.5		
HK6A 46	Dental Removable Appliances: An Introduction	1.5.1 1.5.2 1.5.3	1.8.1 1.8.2 1.8.3	1.14.1	1.15.2	5.1				7.1	9.4	10.2			10.7	12.5		
HK5M 46	Dental Anatomy: An Introduction	1.1.2 1.1.3								7.1	9.4							
HK5F 46	Dental Fixed Restorations: An Introduction	1.5.1	1.8.1 1.8.2 1.8.3	1.14.2		5.1				7.1	9.4	10.2			10.7	12.5		
HK5H 46	Dental Materials: An Introduction	1.1.6	1.8.1 1.8.2 1.8.3							7.1	9.4							
HK5K 46	Dental Occlusion: An Introduction	1.1.2	1.8.1 1.8.2 1.8.3	1.5.1		5.1				7.1	9.4	10.2			10.7	12.5		
HK6E 46	Dental Custom Trays	1.1.2	1.8.1 1.8.2	1.5.1		5.1				7.1	9.4	10.2			10.7	12.5		

Unit Code	Unit title	Clinical				Communication				Professionalism				Management and Leadership			
			1.8.3														
HK6F 46	Dental Record Blocks	1.5.1 1.5.2	1.8.1 1.8.2 1.8.3			5.1				7.1	9.4	10.2			10.7	12.5	
HK6G 46	Dental Surveying	1.5.1 1.5.2	1.8.1 1.8.2 1.8.3			5.1				7.1	9.4	10.2			10.7	12.5	

## GDC learning outcomes for registered dental technicians key

### 1.1 Foundations of practice

- 1.1.2 Describe the range of normal dental and oral anatomy and physiology.
- 1.1.3 Recognise abnormalities of the oral cavity and their effect on dental devices.
- 1.1.4 Explain the potential routes of transmission of infectious agents in dental practice, mechanisms for the prevention of infection, the scientific principles of decontamination and disinfection and their relevance to health and safety.
- 1.1.5 Describe and evaluate the procedures used in the design and manufacture of custom made dental devices.
- 1.1.6 Describe and evaluate the scientific principles underpinning the use of materials and dental biomaterials and discuss their selection.
- 1.5.5 Explain the principles of obtaining valid patient consent.

### 1.8 Patient and public safety

- 1.8.1 Recognise the risks around the working laboratory environment and manage these in a safe and efficient manner.
- 1.8.2 Perform effective decontamination and infection control procedures, taking into account their effect on materials.
- 1.8.3 Take responsibility for ensuring compliance with current best practice guidelines and European manufacturing legislation.
- 1.14.1 Design, manufacture, assess and provide biomechanically sound removable devices.
- 1.15.1 Repair custom made dental devices to meet the needs of the patient.
- 1.15.2 Repair and modify custom made dental devices.

## 2 Population-based health and care

- 2.3 Recognise the impact of clinical guidelines relating to the delivery of oral health care on laboratory practice and their implications.

## **5 Communication**

- 5.1 Communicate appropriately, effectively and sensitively by spoken, written and electronic methods and maintain and develop these skills.
- 5.4 Recognise and act within the principles of information governance.

## **7 Ethical and legal**

- 7.1 Recognise and act within the GDC's standards and within other professionally relevant laws, ethical guidance and systems.
- 7.2 Recognise and act upon the legal and ethical responsibilities involved in protecting and promoting the health of individual patients.
- 7.4 Take responsibility for and act to raise concerns about their own or others' health, behaviour or professional performance as described in *The Principles of Raising Concerns*.

## **9 Development of self and others**

- 9.4 Develop and maintain professional knowledge and competence and demonstrate commitment to lifelong learning.

## **10 Management and leadership**

- 10.2 Effectively manage their own time and resources.
- 10.3 Recognise the impact of personal behaviour and manage this professionally.
- 10.7 Ensure that all aspects of practice comply with legal and regulatory requirements.

## **11 Working with others**

- 11.5 Recognise, take responsibility for and act to raise concerns about your own or others' health, behaviour or professional performance as described in *The Principles of Raising Concerns*.

## **12 Managing the clinical and working environment**

- 12.1 Recognise and comply with systems and processes to support safe patient care.
- 12.2 Recognise the need for effective recorded maintenance and testing of equipment and requirements for appropriate storage, handling and use of materials.
- 12.5 Recognise and comply with national and local clinical governance and health and safety requirements.

### 5.3 Mapping of Core Skills development opportunities across the qualification

Unit code	Unit title	Communication			Numeracy		ICT		Problem Solving			Working with Others	
		Written (Reading)	Written (Writing)	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
HK5P 46	Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment	X	X	X	X	X	X		X	X	X	X	
HE3D 46	Dental Care Professionals: Fitness to Practice	X	X	X			X		X		X	X	X
HK6D 46	Dental Cast Production: An Introduction	X	X	X	X	X	X		X	X	X	X	
HK6A 46	Dental Removable Appliances: An Introduction	X	X	X	X	X	X		X	X	X	X	
HK5M 46	Dental Anatomy: An Introduction	X	X	X	X	X	X						
HK5F 46	Dental Fixed Restorations: An Introduction	X	X	X	X	X	X		X	X	X	X	
HK5H 46	Dental Materials: An Introduction	X	X	X			X						
HK5K 46	Dental Occlusion: An Introduction	X	X	X	X	X	X		X	X	X	X	
HK6E 46	Dental Custom Trays	X	X	X	X	X	X		X	X	X	X	
HK6F 46	Dental Record Blocks	X	X	X	X	X	X		X	X	X	X	
HK6G 46	Dental Surveying	X	X	X	X	X	X		X	X	X	X	

## 5.4 Assessment strategy for the qualification

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Unit	Assessment			
	Outcome 1	Outcome 2	Outcome 3	Outcome 4
Dental Technology: Decontamination and Infection Control	Closed-book assessment			Practical observation
Dental Care Professionals: Fitness to Practice	Report under open-book conditions	Question paper		
Dental Cast Production: An Introduction	Question paper	Practical observation with final products and quality checklists		
Dental Removable Appliances: An Introduction	Question paper	Practical observation with final products and quality checklists		
Dental Anatomy: An Introduction	Question paper, diagrams and visual identification of human teeth			
Dental Fixed Restorations: An Introduction	Question paper		Practical observation	
Dental Materials: An Introduction	Question paper			
Dental Occlusion: An Introduction	Question paper		Practical observation	
Dental Custom Trays	Question paper	Practical observation with final products and quality checklists		
Dental Record Blocks	Question paper		Practical observation with final products and quality checklists	
Dental Surveying	Question paper	Practical observation with final products and quality checklists		

## 6 Guidance on approaches to delivery and assessment

### 6.1 Sequencing/integration of units

Refer to Appendix 1 for recommended delivery sequence.

### 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](http://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.

#### 6.2.3 Credit transfer

There are no opportunities for credit transfer available.

### 6.3 Opportunities for e-assessment

There are opportunities for e-assessment in all units of this award.

### 6.5 Resource requirements

All staff involved in teaching and assessment should be GDC registrants.

Educational establishments should have the necessary equipment and materials available to allow learners to complete the practical aspects of the units.

Decontamination and infection prevention and control and personal protective equipment must be available.

## 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](http://www.sqa.org.uk/assessmentarrangements).

### Internal and external verification

All instruments of assessment used within this qualification 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](http://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)

**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](http://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.

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



## 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 National Certificate (NC) in Dental Technology: An Introduction is designed for trainee dental technologists. Access to it is at the discretion of the delivering centre, you may be asked to provide evidence of your achievements from school or perhaps complete a short pre-entry course prior to being accepted.

This NC award is at SCQF level 6, an introductory level.

During the course you will complete 11 units all of which have been designed to develop your knowledge and skills for working effectively and safely in a dental technology environment.

As well as the specific technical skills, the importance of working safely and ensuring that infection prevention and control processes are followed is highlighted throughout the course. You will work under the supervision of a GDC registrant.

Assessments are varied and will typically include the completion of question papers, producing and modifying dental appliances and evaluating your practical work.

You will have opportunities to develop your Core Skills in *Communication, Information and Communication Technology (ICT), Numeracy* and *Working with Others*.

There will also be opportunities to develop other broader employability skills, for example managing your time and being organised, your self-confidence and self-motivation, your listening, teamwork and study skills and your recognition of the importance of economy and sustainability when working with expensive equipment and materials.