



Higher National Unit specification

General information

Unit title: Dental Care Professionals: Constructing Study Models (SCQF level 8)

Unit code: H95N 35

Superclass: PF

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Unit purpose

This Unit is designed to enable the learner to develop the knowledge, skills and practical application required to pour, cast and trim study models, working to the prescription of a Dentist. The Unit is appropriate for General Dental Council (GDC) registered dental nurses and orthodontic therapists who are supported in a clinical workplace setting to undertake these additional duties within their Scope of Practice, as defined by the GDC.

Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Explain the legislation and professional guidance that relates to the construction of dental appliances.
- 2 Explain the types and properties of a range of dental materials, instruments and equipment used to construct study models.
- 3 Demonstrate competency in the construction of study models to the prescription of a dentist.
- 4 Evaluate own skills in the construction of study models and identify areas for self development.

Credit points and level

1 Higher National Unit credit at SCQF level 8 (8 SCQF credit points at SCQF level 8)

Higher National Unit specification: General information (cont)

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Recommended entry to the Unit

Access to this Unit is at the discretion of the centre, however learners must be registered with the GDC as a Dental Care Professional (DCP), eg dental nurse. The learner must be working in a clinical dental environment and have the opportunity to gain regular experience in the construction of study models, under the supervision of a GDC registered dentist, dental technician or clinical dental technician.

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this Unit specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

Context for delivery

If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

This Unit is designed to enable you to become effective in constructing study models, to the prescription of a dentist. The Unit forms part of the Professional Development Award in Dental Care Professionals: Dental Laboratory Skills at SCQF level 8 and is an optional Unit in the Dental Nursing HND. It can also be taken as a standalone Unit, perhaps for the purpose of continued professional development (CPD)

Guidance on the content for the delivery of the Knowledge and Skills is provided for each of the Unit's Outcome.

Equality and inclusion

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should 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.

Higher National Unit specification: Statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Explain the legislation and professional guidance that relates to the construction of dental appliances.

Knowledge and/or Skills

- ◆ Legal and ethical considerations
- ◆ Regulatory body guidelines
- ◆ Role and responsibilities of the dental care professional as set out in the Scope of Practice in relation to the construction of study models
- ◆ Infection Control and Decontamination regulations relevant to this activity
- ◆ Health and safety requirements relevant to this activity
- ◆ Requirements of the Medical Devices Directive 93/42EC and Medicines and Healthcare products Regulatory Agency (MHRA) regulations

Outcome 2

Explain the types and properties of a range of dental materials, instruments and equipment used to construct study models.

Knowledge and/or Skills

- ◆ The range of materials instruments and equipment used in the construction of study models
- ◆ Material composition and properties
- ◆ Safe handling and manipulation of materials

Higher National Unit specification: Statement of standards (cont)

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Outcome 3

Demonstrate competency in the construction of study models.

Knowledge and/or Skills

- ◆ Role of the dental care professional in the interpretation of a dental prescription
- ◆ Appropriate methods of communication with all members of the dental team in relation to the construction of study models
- ◆ Accurate record keeping during all stages of construction of study models
- ◆ Appropriate and safe use of the range of materials, instruments and equipment including Personal Protective Equipment (PPE), required for the construction of study models
- ◆ Anatomical landmarks in relation to the construction of study models
- ◆ Procedures to follow during the construction of study models
- ◆ Infection control and decontamination processes required before, during and after the procedure

Outcome 4

Evaluate own skills in the construction of study models and identify areas for self development.

Knowledge and/or Skills

- ◆ Methods to aid evaluation of own performance during the construction of study models
- ◆ Identification of professional development needs in order to maintain own knowledge, skills and practice in the context of constructing study models

Higher National Unit specification: Statement of standards (cont)

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Evidence Requirements

Learners will need to provide evidence to demonstrate their Knowledge and/or skills across all Outcomes by showing that they can:

Outcome 1

Explain the legislation and professional guidance that relates to the construction of dental appliances:

- ◆ Explain how the legislation and guidance governing commissioning and manufacturing dental appliances informs practice.
- ◆ Explain how the relevant legislation relating to health and safety and infection control during the construction of study models ensures safe practice.
- ◆ Define the role and responsibilities of the dental care professional within the GDC scope of practice relative to the construction of study models.

Outcome 2

Explain the types and properties of a range of dental materials, instruments and equipment used to construct study models:

- ◆ Describe the range of materials, instruments and equipment used in the construction of study models.
- ◆ Explain the composition and properties of the materials used in the construction of study models.
- ◆ Explain safe handling and appropriate manipulation techniques for the range of materials used in the construction of study models.

Outcome 3

Demonstrate competency in the construction of study models to the prescription of a dentist:

- ◆ Accurately interpret the content of a prescription from a dentist and correctly identify the appropriate instruments, materials and equipment required to construct study models.
- ◆ Select and safely use the correct type and quantity of materials, instruments and equipment required for the construction of study models.
- ◆ Communicate effectively, using appropriate methods, with dental team members.
- ◆ Produce and maintain complete, accurate and up to date laboratory records during all stages of construction of study models, consistent with relevant legislation.
- ◆ Correctly undertake all stages required to construct study models.
- ◆ Correctly identify anatomical landmarks in relation to the construction of study models.
- ◆ Implement safe working practices throughout the procedure to ensure safety and limit any risk of cross contamination.

Higher National Unit specification: Statement of standards (cont)

Unit title: Dental Care Professionals: Constructing Study Models (SCQF level 8)

Evidence should be gathered from practice, patient cases to include:

- ◆ Study models for prosthodontics or patient assessment
- ◆ Orthodontic study model

Utilising:

- ◆ Gypsum
- ◆ Ortho Stone

Outcome 4

Evaluate own skills in the construction of study models, and identify areas for self development:

- ◆ Reflect on and evaluate own performance during the construction of study models, this will include:
 - Accuracy of the interpretation of the prescription
 - Did interaction and communication meet the needs of other members of the dental team effectively
 - Did own practice reflect adherence to relevant legislation and professional guidance
- ◆ Identify how feedback and peer review will be used to improve own performance during the construction of study models.



Higher National Unit Support Notes

Unit title: Dental Care Professionals: Constructing Study Models
(SCQF level 8)

Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This Unit is designed to enable the learner to develop the knowledge, skills and practical application required to pour, cast and trim study models, working to the prescription of a dentist. The Unit is appropriate for GDC registered dental nurses and orthodontic therapists who are supported in a clinical workplace setting to undertake these additional duties within their Scope of Practice, as defined by the GDC.

Upon completion, learners should be able to accurately interpret the content of a prescription from a dentist and correctly identify and safely use the instruments, materials and equipment required to construct study models.

Successful completion of this Unit may give the learner the opportunity to extend their clinical duties within their professional scope of practice, as defined by the GDC and contribute to their continued professional development. Self-reflection and peer review will assist the learner to evaluate their own practice and continually develop their professional knowledge and skills.

Guidance on approaches to delivery of this Unit

Delivery should be learner-centred and where possible take account of actual workplace practice to allow learners to demonstrate the required skills and knowledge for this Unit.

As it involves a significant amount of experiential learning, learners should be allowed sufficient time and opportunity to meet the requirements of the Unit. Learners will also be required to reflect on their performance and experiences in order to improve their professional knowledge and skills in the construction of study models.

It is envisaged that the delivery and facilitation of this Unit could be through a blended approach using a lecture based and a 'hands on' practical teaching approach that includes observation by a GDC registered dentist, dental technician or clinical dental technician. Supervision, feedback and mentoring in the teaching and workplace environment, personal reflection, self-directed learning and reading of recommended texts will support the learner to become proficient in undertaking this additional duty within their professional scope of practice, as defined by the GDC.

The preferred order of teaching is as set out in the Unit.

Higher National Unit Support Notes (cont)

Unit title: Dental Care Professionals: Constructing Study Models (SCQF level 8)

Outcome 1 will develop the learner's knowledge of how relevant legislation and professional guidelines ensure best practice. Outcome 2 allows the learner to examine the range of instruments, materials and equipment used, their properties and correct handling and manipulation techniques. They will develop and consolidate the knowledge and skills required to safely construct study models, in line with current legislation and guidance.

The focus of **Outcome 1** is on the relevant legislation and professional guidance that informs safe and effective working practices in the construction of study models, to the prescription of a dentist.

Teaching should include:

- ◆ GDC Guidance: Standards for the Dental Team.
- ◆ GDC Guidance: Scope of Practice.
- ◆ GDC Guidance: Standards on Commissioning and Manufacturing Dental Appliances.
- ◆ Role and responsibilities of the dental care professional as set out in the GDC's Scope of Practice in relation to the construction of study models.
- ◆ GDC Guidance: Continued Professional Development (CPD) for Dental Care Professionals.
- ◆ Current relevant legislation and guidance in relation to Health and Safety and Infection Control.
- ◆ Indemnity cover.
- ◆ Requirements of the Medical Devices Directive 93/42EC and Medicines and Healthcare products Regulatory Agency (MHRA) regulations.
- ◆ Legal and ethical requirements in relation to record keeping, eg Data Protection.

Outcome 2

Teaching should include:

- ◆ Range of materials used in the construction of study models: Plaster of Paris/Gypsum, Crystacal, Denstone, Orthostone.
- ◆ Composition and properties of the materials used in the construction of study models.
- ◆ Safe handling and appropriate manipulation techniques for the range of materials used in the construction of study models, including correct PPE and waste disposal.

Outcomes 3 and 4 have a practical focus. The learner will be able to apply the knowledge and skills gained from Outcome 1 and Outcome 2 to safely and efficiently carry out each stage required to construct quality study models, to the prescription of a dentist. Learners will be able to use feedback received on their performance and Outcome produced to evaluate their practice and review the quality of their work.

Outcome 3 will provide learners with the opportunity to demonstrate proficiency and safe working practices in the procedures involved in the construction of study models.

Higher National Unit Support Notes (cont)

Unit title: Dental Care Professionals: Constructing Study Models (SCQF level 8)

Teaching should include:

- ◆ Interpretation of prescription from the dentist.
- ◆ Organisation required for the procedure: correct PPE, instruments, equipment and materials.
- ◆ Time management.
- ◆ Step by step procedure for each of the construction of study models.
- ◆ Safe use of equipment and instruments during each procedure.
- ◆ Communication with the dental team: Methods of communication: written, verbal, paralinguistic, non-verbal, listening skills, body language.
- ◆ Anatomical landmarks: study models: hamular notch, hard/soft palate, tuberosities, incisal papilla, fraenal attachments of tongue and lips, palatine fovea, pterygomandibular raphe, retromolar and pad and rugae.
- ◆ Safe working practices in line with health and safety and infection control legislation and guidance in relation to the construction of study models
Record keeping: what should be included and the importance of completing accurate and up to date records on laboratory records.

Outcome 4 will enable the learner to develop evaluation skills. Learners should be encouraged to reflect on their own practice. The combination of self-reflection and feedback from other members of the dental team will allow the learner to identify areas for improvement in their practice and contribute to their continued professional development (CPD).

Teaching should include:

- ◆ The purpose and importance of reflective practice and obtaining peer feedback to inform own knowledge, skills and future CPD.

Guidance on approaches to assessment of this Unit

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.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

Outcomes 1 and 2 could be assessed together by a closed-book assessment for example a range of short answer or extended response questions.

Higher National Unit Support Notes (cont)

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Outcome 3 could be assessed in the format of practical activities observed by GDC registered dentist, dental technician or clinical dental technician on the production and finishing of the range of the following practical cases:

Assessment	Range	Number of observed patient cases (Upper and Lower)
Study Models Utilising: ◆ Gypsum ◆ Ortho stone	Study models for prosthodontics or patient assessment Orthodontic study model	2 complete sets (one upper and one lower) 2

To meet the requirements of Outcome 4 learners should complete a reflective account which includes their own assessment of their practice, details of feedback from assessor (GDC registered dentist, dental technician or clinical dental technician). The account should include subsequent identification of areas of strength and areas that require further development.

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this Unit. 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 www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

There may be opportunities to develop the Core Skills of *Communication* (Oral and Written), *Information and Communication Technology (ICT)*, *Working with Others*, *Numeracy* and *Problem Solving* in this Unit, although there is no automatic certification of Core Skills or Core Skill components.

History of changes to Unit

Version	Description of change	Date

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General information for learners

Unit title: Dental Care Professionals: Constructing Study Models (SCQF level 8)

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

This Unit is designed to enable you to become competent in constructing study models, to the prescription of a dentist. The Unit forms part of the Professional Development Award in Dental Care Professionals: Dental Laboratory Skills at SCQF level 8 and is an optional Unit in the Dental Nursing HND. It can also be taken as a standalone Unit, perhaps for the purpose of continued professional development (CPD).

The Unit is appropriate for registered dental nurses and orthodontic therapists who are supported in a clinical workplace and will have opportunities to develop knowledge and skills in constructing study models, to the prescription of a dentist.

Upon completion, you should be able to accurately interpret the content of a prescription from a dentist; and correctly identify and safely use the correct instruments, materials and equipment required to construct study models.

Successful completion of this Unit may give you the opportunity to extend your clinical duties within your professional scope of practice, as defined by the General Dental Council (GDC) and contribute to your continued professional development. Self-reflection and peer review will assist you to evaluate your own practice and continually develop your professional knowledge and skills.

You will also learn the importance of reflection and evaluation to your continuing good practice.

On successful completion of the Unit you will be able to:

- 1 Explain the legislation and professional guidance that relates to the construction of dental appliances.
- 2 Explain the types and properties of a range of dental materials, instruments and equipment used to construct study models.
- 3 Demonstrate competency in the construction of study models to the prescription of a dentist.
- 4 Evaluate own skills in the construction of study models and identify areas for self development.

For Outcomes 1 and 2, you may be asked to complete a range of short answer or extended response questions under closed-book conditions.

For Outcome 3 you will undertake practical activities observed by a GDC registered dentist, dental technician or clinical dental technician. You will be required to demonstrate competency in the production of study models on a minimum of four occasions.

For Outcome 4 you will be required to evaluate your practice. You will reflect on all aspects of your own practice and gather feedback from your peers to help you identify your areas of strength and areas that perhaps require further professional development.

General information for learners (cont)

Unit title: Dental Care Professionals: Constructing Study Models
(SCQF level 8)

There may be opportunities to develop your Core Skills in *Communication, Working with Others, Problem Solving, Numeracy* and *Information and Communication Technology (ICT)*.