



Higher National Unit specification

General information for centres

Unit title: Dental Removable Prosthodontics: Partial Dentures

Unit code: F1MD 34

Unit purpose: This Unit is about the theory and skills required to produce metallic elements for removable prosthodontic appliances, for the partially dentate patient, to a standard appropriate for a clinical environment. The Unit is concerned with developing practical skills and understanding of design considerations for removable prosthodontic appliances for partially dentate patients.

On completion of the Unit the candidate should be able to:

- 1 Explain the design considerations for partial removable prosthodontic appliances.
- 2 Construct simple partial removable prosthodontic appliances incorporating cast metallic bases to prescription.
- 3 Construct removable prosthodontic appliance incorporating wrought metal work to prescription.

Credit points and level: 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: Access to this Unit is at the discretion of the centre. It would be beneficial that candidates complete a locally devised programme of National Qualification Units in Dental Technology at SCQF level 6 and the Higher National Units: F1M6 34 *Dental Biomaterials*, and F1M5 34 *Dental Alloy Techniques*. Candidates could have completed an induction to dental technology course.

Core Skills: There are opportunities to develop the Core Skills of Communication SCQF level 6, Numeracy SCQF level 5 and Problem Solving SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

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.

Assessment: It is recommended that Outcome 1 of this Unit could be assessed by 10 restricted response questions lasting no longer than 45 minutes, carried out at the end of delivery of the Unit.

Outcomes 2 and 3 requires the candidate to produce three pieces of practical work displaying competent technical performance in the manipulation of dental materials to a given prescription. This assessment must take place within a dental laboratory.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Explain the design considerations for partial removable prosthodontic appliances

Knowledge and/or Skills

- ◆ Partial denture
- ◆ Preservation of the oral tissues
- ◆ Partial denture design process
- ◆ Factors affecting the retention of partial dentures

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ explain the role of a partial denture in the preservation of the oral tissues. Candidates responses should cover:
 - 1 Stopping natural teeth from tilting
 - 2 Preventing space closure
 - 3 Preventing the over eruption of teeth in the opposing jaw
 - 4 The distribution of contact forces around the jaws
 - 5 Reducing the stress to suspect teeth (stress-broken design)
 - 6 Supporting loose teeth (periodontal splint).
- ◆ explain the partial denture design process including support, retention and connector.
- ◆ identify the origins of forces that act on removable partial dentures during function and provide solutions that will resist the effects of such forces.

Evidence for this Outcome should be generated under controlled conditions.

Assessment Guidelines

Assessment guidelines for the Unit follow after Outcome 3.

Higher National Unit specification: statement of standards (cont)

Unit title: Dental Removable Prosthodontics: Partial Dentures

Outcome 2

Construct simple partial removable prosthodontic appliances incorporating cast metallic bases to prescription

Knowledge and/or Skills

- ◆ Kennedy Classification of partial dentures
- ◆ Production processes of partial dentures
- ◆ Incorporation of cast metallic frameworks

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ produce completed cast metallic framework partial dentures for a Kennedy Class III and one of the following — Kennedy Class I, Kennedy Class II or Kennedy Class IV

Assessment Guidelines

Assessment guidelines for the Unit follow after Outcome 3.

Outcome 3

Construct removable prosthodontic appliances incorporating wrought metal work to prescription

Knowledge and/or Skills

- ◆ Acrylic partial denture
- ◆ Wrought components
- ◆ Manipulation of wrought components
- ◆ Clasp types

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ produce wrought metallic components for incorporation into an acrylic partial denture with:
 - two Gingival Approaching Clasps
 - three Occlusal Approaching Clasps
 - one Lingual Bar Connector

Evidence for this Outcome must be generated within a dental laboratory setting from a given prescription.

Higher National Unit specification: statement of standards (cont)

Unit title: Dental Removable Prosthodontics: Partial Dentures

Assessment Guidelines

Outcome 1 of this Unit could be assessed by 10 restricted response questions lasting no longer than 45 minutes. This assessment should be carried out at the end of delivery of the Unit.

The practical component covered in Outcomes 2 and 3 requires the candidate to produce three pieces of practical work displaying competent technical performance in the manipulation of dental materials to a given prescription.

The practical components for Outcomes 2 and 3 must be assessed within a dental laboratory.

Administrative Information

Unit code:	F1MD 34
Unit title:	Dental Removable Prosthodontics: Partial Dentures
Superclass category:	PF
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Version	Description of change	Date

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Higher National Unit specification: support notes

Unit title: Dental Removable Prosthodontics: Partial Dentures

This part of the Unit specification is offered as guidance. The support notes 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

The purpose of this Unit is to allow candidates to develop practical skills, knowledge and understanding of the design considerations for removable prosthodontic appliances for the partially dentate patient.

Outcome 1

In this Outcome candidates may become familiar with the design considerations for partial removable prosthodontic appliances.

Candidates could be able to define the term 'partial denture' and explain the primary role of such an appliance.

In this Outcome candidates may be able to identify the six methods in which the partial denture can help in the preservation of the oral cavity by:

- 1 Stopping natural teeth from tilting
- 2 Preventing space closure
- 3 Preventing the over eruption of teeth in the opposing jaw
- 4 The distribution of contact forces around the jaws
- 5 Reducing the stress to suspect teeth (stress-broken design)
- 6 Supporting loose teeth (periodontal splint).

Candidates may be able to identify the origins of forces that act on a removable partial denture during function and provide solutions that will resist the effects of such forces.

In this Outcome the candidate may be able to clearly summarise the factors affecting the retention of a partial denture.

Outcome 2

Candidates in this Outcome may construct simple partial removable prosthodontic appliances incorporating cast metallic bases to prescription.

The simple removable prosthodontic appliances could cover all four of Kennedy's Classifications of edentulous areas and modifications ie:

- Class I — Unilateral free-end saddle
- Class II — Bilateral free-end saddle
- Class III — Bounded saddle
- Class IV — Bounded free-end saddle anterior to all remaining teeth

Higher National Unit specification: support notes (cont)

Unit title: Dental Removable Prosthodontics: Partial Dentures

Outcome 3

Candidates in this Outcome will construct removable prosthodontic appliances incorporating wrought metal work to prescription.

The appliances could incorporate wrought metallic clasps (both gingival and occlusal), wrought stainless steel lingual bar, and wrought stainless steel occlusal rests.

Guidance on the delivery and assessment of this Unit

It is envisaged that the teaching of this Unit could be delivered through lecturer mediated discussion, practical demonstrations and the reading of recommended texts.

Outcome 1 of this Unit could be assessed by a 10 restricted response questions, lasting no longer than 45 minutes and carried out at the end of delivery of the Unit.

Outcomes 2 and 3 require the candidate to produce three pieces of practical work displaying competent technical performance in the manipulation of dental materials to a given prescription.

The practical components must be assessed within a dental laboratory setting.

Opportunities for developing Core Skills

In completing the class work of Outcome 1 candidates may have the opportunity to develop the component 'Written Communication (reading)' of the Core Skill Communication at SCQF level 6. Candidates will have the opportunity to analyse and evaluate complex information from a variety of dental literature sources. The general skill that the candidate may have to complete is 'Read, understand and evaluate written communication'.

There are opportunities for the candidate to develop Oral Communication at SCQF level 6 in the assessment of this Unit. When candidates are involved in dental laboratory practical work they will an opportunity to develop the general skill 'Produce and respond to oral communication on a complex topic'. Candidates will have to convey essential information or ideas and respond to questions which ask them to expand on key dental technology concepts. Candidates will, also, have an opportunity to evaluate and present a substantial body of information on dental laboratory concepts.

There is also the opportunity for the candidate to develop the components 'Planning and Organising' and 'Reviewing and Evaluating' of the Core Skill Problem Solving at SCQF level 6 while completing the class work of Outcome 2. In this Outcome the candidate will produce two cast metallic framework partial dentures, this will require the candidate to organise, plan and review the procedures involved in the task as well as evaluating the Outcome.

Higher National Unit specification: support notes (cont)

Unit title: Dental Removable Prosthodontics: Partial Dentures

In Outcome 3 the candidate may have the opportunity to develop the components ‘Planning and Organising’ and ‘Reviewing and Evaluating’ of the Core Skill Problem Solving at SCQF level 6 while completing the class work. The class work involves the candidate producing an acrylic denture incorporating a number of wrought clasps and a lingual bar, this will require the candidate to organise, plan and review the procedures involved in the tasks and evaluate the Outcome. The general skills that the candidate may have to complete are ‘Plan, organise and complete a task’, ‘Review and evaluate a problem solving activity’.

In Outcome 2 and 3 each of the practical exercises requires the candidate to be familiar with a variety of weights and measures. This will give the candidate the opportunity to develop the component ‘Numeracy — Using Number’ of the Core Skill Numeracy at SCQF level 5.

The Core Skill of Numeracy: Using Graphical Information SCQF level 5 could also be developed within this Unit in particular in relation to the work within the laboratory. The general skill at SCQF level 5 is ‘Interpret and communicate graphical information in everyday and generalised contexts’. Candidates can be encouraged to analyse and interpret information from suppliers data which has been presented in complex graphical form. This Core Skill could be developed without formal certification.

The assessment of this Unit may also contribute towards the component ‘Written Communication (writing)’ of the Core Skill Communication at SCQF level 6. Candidates may have to structure their responses, which could include complex vocabulary, accurately and using a logical structure. The general skill that candidates may have to complete is ‘Produce well-structured written communication on complex topics’.

Open learning

This Unit could be delivered by distance learning, which may incorporate some degree of online support. With regard to assessment, planning would be required of the centre concerned to ensure the sufficiency and authenticity of the candidate evidence. Candidates would need to attend the centre as assessment for Outcomes 2 and 3 must take place in a dental laboratory.

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

General information for candidates

Unit title: Dental Removable Prosthodontics: Partial Dentures

This Unit has been designed to develop your knowledge, understanding, and practical skills by constructing a variety of simple removable prosthodontic appliances.

The Unit has three main areas, each the subject of a separate Outcome. To begin with you will be looking at the design considerations involved in the construction of partial dentures. You will then construct a selection of simple cast metallic frameworks for partial cases. This is then followed by the construction of appliances incorporating wrought metal work to a given prescription.

On completion of this Unit you will be able to:

- ◆ explain the design considerations for partial removable prosthodontic appliances
- ◆ construct simple partial removable prosthodontic appliances incorporating cast metallic bases to prescription
- ◆ construct removable prosthodontic appliances incorporating wrought metal work to prescription

Outcomes 2 and 3 will consist of a practical assessment and Outcome 1 may be an assessment in the form of a standard set of restricted response questions. Outcome 1 may be carried out at the end of delivery of the Unit.

Outcomes 2 and 3 will ask you to produce three pieces of practical work displaying your competence in the manipulation of dental materials to a given prescription. The practical assessment will take place within a dental laboratory setting.

In completing the class work and assessments of this Unit you may have the opportunity to develop the component: 'Written Communication' of the Core Skill Communication up to SCQF level 5, 'Using Number' of the Core Skill Numeracy up to SCQF level 4, and 'Planning and Organising' of the Core Skill Problem Solving up to SCQF level 6.