SKILLSIQ

CAPABLE PEOPLE MAKE CLEVER BUSINESS

Diploma of Dental Technology

Validation Guide

October 2017

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Introduction

SkillsIQ is a not-for-profit Skills Service Organisation (SSO) supporting industry in developing standards to equip the people-facing workforce with the right skills for jobs now and into the future. SkillsIQ is funded by the Department of Education and Training to support the Industry Reference Committees (IRCs) responsible for the development and maintenance of training packages in the following sectors:

- Community Services
- Health (inclusive of Dental)
- Local Government
- Public Sector
- Floristry
- Hairdressing and Beauty Services
- Funeral Services
- Retail Services
- Sport, Fitness and Recreation
- Tourism, Travel and Hospitality.

IRCs drive the process of training package development and are made up of people with experience, skills and knowledge of their particular industry sectors. IRCs are responsible for the provision of strategic input and advice that represents the needs of their workforce, and for ensuring training package products reflect these needs.

Project background

The Diploma of Dental Technology outlines the national standards for skills development in dental technology and reflects the role of Dental Technicians. Under the direction of the Dental Industry Reference Committee (IRC), SkillsIQ is undertaking training package development work to ensure the Diploma of Dental Technology includes skills for working with computer-aided design (CAD) and computer-aided manufacturing (CAM). The Dental IRC, along with the broader industry, have identified these skills as being critical in a contemporary dental laboratory.

Draft 1 development occurred under the direction of the Dental Technology Technical Advisory Committee (TAC), a committee of industry experts who provide industry advice and input on behalf of the sector to inform the development of training package products.

The Dental Technology TAC operates under the direction of the Dental IRC. IRC members have ultimate and final decision-making authority regarding training package development.

Two stand-alone units of competency in CAD and CAM have been developed to address the identified skills gaps within the existing Diploma of Dental Technology. A key focus of the development work has been ensuring that the Units of Competency and associated Assessment Requirements are written in a manner that allows adaptability and flexibility in response to rapid technological developments.

Draft 1 of the revised Diploma of Dental Technology and the new CAD and CAM Units of Competency were available for consultation from 4 September to 6 October 2017. Feedback received during Draft 1 has been analysed and changes, as agreed by the TAC, have been incorporated into Draft 2. A summary of these changes is available below at Summary of changes - Draft 1 to Draft 2.

Validation and timelines

National validation on Draft 2 will occur over two weeks, from 30 October – 10 November 2017. During this period input will be sought on the following:

- The revised Diploma of Dental Technology
- Two proposed draft Units of Competency and associated Assessment Requirements.

Validation of Draft 2 allows stakeholders to review changes made to Draft 1 components and confirm that resultant training package products meet their needs. It provides an opportunity for final input prior to submission for endorsement.

Online Feedback Forum

Feedback can be provided online via the SkillsIQ Online Feedback Forum. The Feedback Forum is a tool designed to capture stakeholder feedback and provide an opportunity for stakeholders to view feedback left by others.

To access the Feedback Forum, click on the following link:

https://www.skillsiq.com.au/FeedbackForum/TrainingPackages1/HLTHealth

About this guide

This guide is for both industry users, for whom training and assessment is provided directly or indirectly, and for Registered Training Organisations (RTOs) that provide these services.

This guide, which should be read in conjunction with the Draft 2 training package products, provides:

- mapping to previous versions
- an overview of the Units of Competency
- an explanation of the Assessment Requirements associated with each Unit
- a summary of the main changes proposed
- key questions on which SkillsIQ seeks feedback.

Contact details

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Summary of changes - Draft 1 to Draft 2

The following table outlines the main points raised in Draft 1 consultation and the ways in which they have been addressed.

Component/s	Change to Draft 2
Qualification	
HLT55117 Diploma of Dental Technology	
Packaging rules	Both *HLTDET016 Design digital restorations and appliances using computer-aided design (CAD)* and *HLTDET017 Construct restorations and appliances using computer-aided manufacturing (CAM)* were identified for inclusion within the core of the Diploma of Dental Technology. As a result, the packaging rules have been revised.
Alignment to qualification level	Concern was raised by one stakeholder that CAD/CAM was proposed to sit at the Diploma level, and identified CAD/CAM as being better aligned to an Advanced Diploma level. All other stakeholders confirmed alignment of CAD/CAM to the role of a Dental Technician, and these have therefore been retained at a Diploma level.
Units of Competency	
General	
Terminology	References to *restorations* have been revised to *restorations and appliances* throughout both Units of Competency, for consistency.
	Feedback suggested updating references to *design* to *patterns.* Draft 1 wording has been retained as 'patterns' were identified as the outcome of the design process.
	Feedback suggested amending the wording to specify standard **infection control** precautions. However, Draft 1 wording has been retained as this already fits within the broader Work Health & Safety precautions.
	Feedback suggested amending the wording to 'tooth anatomy and morphology'. However, Draft 1 wording has been retained as tooth anatomy does not include the oral cavity, and the existing wording is consistent with the rest of the HLTDET Units of Competency.
General	Feedback received suggested that Units should list specific machinery, software or equipment. Draft 1 wording has been retained, as generic language allows for changes in technology without having to update the units and will therefore not 'time lock' them. Advice will instead be placed in the Companion Volume Implementation Guide, which may be updated at any time.

HLTDET016 Design digital restorations and appliances using computer-aided design	
Title	The title has been updated to reflect references to restorations and appliances throughout the unit.
Pre-requisites	Significant feedback identified the need for individuals to have prior knowledge in several areas before entry into this unit. The following prerequisites have been included for Draft 2: • HLTDET004 Articulate models and transfer records • HLTDET008 Construct cast removable alloy partial denture framework • HLTDET009 Construct crown and bridge structures • HLTDET011 Construct ceramic and fixed restorations • HLTDET012 Construct orthodontic appliances • HLTDET013 Construct oral splints • HLTDET015 Construct complete removable acrylic dentures and appliances
Elements and Performance Criteria	Performance Criterion updated to include references to intraoral scans.
Performance Evidence	The number of assessments required has been retained. Performance Evidence has been revised to include at least one crown and bridge assessment, as this was deemed the most complex type of restoration and appliance in which it is imperative for learners to demonstrate competence. The learner may then choose the remaining three restorations or appliances from at least two of the remaining categories listed, depending on the laboratory availability.
Assessment Conditions	Revision to the wording will include reference to the use of models (as well as digital and/or physical impressions).
HLTDET017 Construct restorations and appliances using computer-aided manufacturing	
Title	The title has been updated to reflect references to restorations and appliances throughout the unit.
Pre-requisites	Significant feedback identified the need for individuals to have prior knowledge in several areas before entry into this unit. The following prerequisites have been included for Draft 2: • HLTDET004 Articulate models and transfer records • HLTDET008 Construct cast removable alloy partial denture framework • HLTDET009 Construct crown and bridge structures • HLTDET011 Construct ceramic and fixed restorations • HLTDET012 Construct orthodontic appliances • HLTDET013 Construct oral splints • HLTDET015 Construct complete removable acrylic dentures and appliances • HLTDET016 Design digital restorations using computer-aided design
Elements and Performance Criteria	The following revisions have been made in Draft 2:

	• New Performance Criteria around obtaining approval prior to manufacturing • Updated Performance Criterion to reference the set-up of machine and selection of appropriate materials • Updated Performance Criteria in relation to the finishing applied to the restoration or appliance • New Performance Criteria around disinfecting restoration or appliance prior to packaging
Performance Evidence	The number of assessments required has been retained. Performance Evidence has been revised to include at least one crown and bridge assessment, as this was deemed the most complex type of restoration and appliance in which it is imperative for learners to demonstrate competence. The learner may then choose the remaining three restorations or appliances from at least two of the remaining categories listed, depending on the laboratory availability. There was a suggestion to include an additional Performance Evidence requirement around the application of the finishing. Finishing is applied as part of the construction process and therefore not required to be a separate assessment.
Knowledge Evidence	The following revisions have been made for Draft 2: • anatomical features of digital restorations, **as relevant to the restoration or appliance** • properties of restoration or appliance material applicable to CAM **and the applicability of each material** Wording has been retained in relation to: • references to oral anatomy.

Qualification

One qualification is included within this review, as detailed in the following table.

Qualification Code	Qualification Title
HLT55117	Diploma of Dental Technology

Qualification equivalence

DETERMINATION OF EQUIVALENCE

A qualification is mapped as equivalent (E) when it provides the same skill and knowledge outcomes, including when:

- core units remain the same or are replaced by similar units which provide the same skill and knowledge outcomes
- numbers of electives remain the same or are raised or reduced slightly.

A qualification is mapped as not equivalent (N) when it provides different skill and knowledge outcomes, including when:

- units have been added to the core, which provide additional skill and knowledge outcomes
- units have been removed from the core, which reduce skill and knowledge outcomes
- a significant number of additional elective units are required
- Entry Requirements are altered, creating significant differences to the structure of the qualification.

Qualification Mapping		
Existing Qualification	**New Qualification**	**E = Equivalent** **N = Not Equivalent**
HLT55115 Diploma of Dental Technology	HLT55117 Diploma of Dental Technology	• N • New Entry Requirements • New units added to core: ▪ HLTDET016 Design digital restorations and appliances using computer-aided design (CAD) ▪ HLTDET017 Construct restorations and appliances using computer-aided manufacturing (CAM)

Units of Competency & Assessment Requirements

The below table provides a list of Units of Competency proposed within this review, including pre-requisites.

A pre-requisite is a Unit of Competency in which the individual must be deemed competent **prior** to the determination of competency in the secondary unit. Pre-requisites are applicable when competency cannot be achieved in a given Unit of Competency without first gaining essential knowledge and skills from other Unit(s) of Competency.

Unit code	Unit title	Pre-requisites
HLTDET016	Design digital restorations and appliances using computer-aided design (CAD)	HLTDET004 Articulate models and transfer records HLTDET008 Construct cast removable alloy partial denture framework HLTDET009 Construct crown and bridge structures HLTDET011 Construct ceramic and fixed restorations HLTDET012 Construct orthodontic appliances HLTDET013 Construct oral splints

		HLTDET015 Construct complete removable acrylic dentures and appliances
HLTDET017	Construct restorations and appliances using computer-aided manufacturing (CAM)	HLTDET004 Articulate models and transfer records HLTDET008 Construct cast removable alloy partial denture framework HLTDET009 Construct crown and bridge structures HLTDET011 Construct ceramic and fixed restorations HLTDET012 Construct orthodontic appliances HLTDET013 Construct oral splints HLTDET015 Construct complete removable acrylic dentures and appliances HLTDET016 Design digital restorations and appliances using computer-aided design (CAD)

Unit of Competency equivalence

DETERMINATION OF EQUIVALENCE

A Unit of Competency is mapped as equivalent (E) when:

- it provides the same skill and knowledge outcomes
- elements and associated performance criteria have remained the same, but are better expressed
- knowledge requirements have remained the same, but are better expressed.

A Unit of Competency is mapped as not equivalent (N) when:

- it provides different skill and knowledge outcomes
- elements and/or performance criteria have been added or removed
- knowledge requirements have been added or removed.

In all cases, Assessment Requirements include more rigorous specification around the volume and frequency of Performance Evidence required to demonstrate competency.

Unit of Competency Mapping		
Existing Unit Code and Title	**Replacement Unit Code and Title**	**Nature of Relationship** **E = equivalent** **N = not equivalent**
N/A	HLTDET016 Design digital restorations and appliances using computer-aided design (CAD)	New Unit
N/A	HLTDET017 Construct restorations and appliances using computer-aided manufacturing (CAM)	New Unit

Key consultation questions

The questions below have been provided to guide the provision of feedback and to highlight key areas of required input. You don't have to answer all questions; all feedback is useful but **please be specific in providing your feedback, providing a rationale and alternative suggestions where possible.**

Qualification

- Is the updated packaging appropriate?
- Are both CAD and CAM appropriate to be packaged in the core?

Titles and Application Statements - Units of Competency

- Does the revised title accurately reflect the skill being described?
- Does the application statement provide a clear and accurate description of the skill being described?
- Are the pre-requisites identified appropriate? Are there any other essential pre-requisites?
- Do the units have gaps? If so, what are they?
- Do the units reflect the scope of workplace roles? If not, what should be changed?

Foundation Skills

- Are Foundation Skills either evident in the Performance Criteria or should they be explained in the Foundation Skills field?
- Are there any essential Foundation Skills that should be highlighted through this field?

Performance Evidence

- Would the types of evidence prove that a person is competent in all the unit outcomes, including Performance Criteria, Foundation Skills and knowledge?
- Are the statements clear? Would assessors understand exactly what they must do?
- How well do the Assessment Requirements articulate the amount of evidence a person would need to be able to provide to show that he or she is competent? Please provide a rationale for responses.
- Is the suggested volume of evidence appropriate?

Knowledge Evidence

- What is the essential knowledge required of an individual in order to perform the task described?
- Is the knowledge evidence clear?
- Is there anything which should be added or deleted?

.Assessment Conditions

- Are the nominated environments appropriate?
- Are the assessment conditions flexible enough to meet changing industry needs and technological advancements?
- Should there be additional requirements for assessors on top of the standards for registered training providers' requirement for assessors? If so, what experience and background are essential for assessors to have?