

DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II



HEALTH, SOCIAL, AND OTHER COMMUNITY DEVELOPMENT SERVICES SECTOR *Technical Education and Skills Development Act of 1994* (*Republic Act No. 7796*)

Section 22, "Establishment and Administration of the National Trade Skills Standards" of the RA 7796 known as the TESDA Act mandates TESDA to establish national occupational skill standards. The Authority shall develop and implement a certification and accreditation program in which private industry group and trade associations are accredited to conduct approved trade tests, and the local government units to promote such trade testing activities in their respective areas in accordance with the guidelines to be set by the Authority. The Competency Standards (CS) serve as basis for the:

- 1. Competency assessment and certification;
- 2. Registration and delivery of training programs; and
- 3. Development of curriculum and assessment instruments.

Each CS has four sections:

- Section 1 Definition of Qualification refers to the group of competencies that describes the different functions of the qualification.
- Section 2 Competency Standards gives the specifications of competencies required for effective work performance.
- Section 3 Training Standards contains information and requirements in designing training program for certain Qualification. It includes curriculum design; training delivery; trainee entry requirements; tools, equipment and materials; training facilities; trainer's qualification; and institutional assessment.
- Section 4 National Assessment and Certification Arrangement describes the policies governing assessment and certification procedure.

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COMPETENCY STANDARDS FOR DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II

SECTION 1 DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II

This **DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures / Appliances) NC II** consists of competencies that a person must achieve to perform dental laboratory and prosthetics services specializing in removable dentures/appliances.

The Units of Competency comprising this qualification include the following:

UNIT CODE	BASIC COMPETENCIES
500311105	Participate in workplace communication
500311106	Work in a team environment
500311107	Practice career professionalism
500311108	Practice occupational health and safety procedures
UNIT CODE	COMMON COMPETENCIES
HCS516201	Maintain an effective relationship with customers and clients
HCS516202 HCS346204	Manage own performance Follow occupational health and safety policies in dental laboratory facilities
HCS346205 ICT311201	Maintain infection control in dental practice Operate a personal computer
UNIT CODE	CORE COMPETENCIES
HCS322328	Arrange artificial teeth for complete dentures
HCS322329	Set-up and wax removable partial dentures
HCS322330	Wax, process and finish acrylic dentures and appliances
HCS322331	Fabricate thermo formed bases and appliances
HCS322339	Repair and modify dentures and appliances
HCS322332	Fabricate oral splints
HCS322333	Fabricate orthodontic appliances
HCS322334	Fabricate cast metal removable partial denture framework

A person who has achieved this Qualification is competent to be:

Dental Laboratory Technician (Removable Dentures/Appliances)

Dental Prosthetics Technician (Removable Dentures/Appliances)

SECTION 2 COMPETENCY STANDARDS

This section gives the details of the contents of the basic, common and core units of competency required in **DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II**.

BASIC COMPETENCIES

UNIT OF COMPETENCY	:	PARTICIPATE IN WORKPLACE COMMUNICATION
UNIT CODE	:	500311105
UNIT DESCRIPTOR	:	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Obtain and convey workplace	1.1	Specific and relevant information is accessed from <i>appropriate sources.</i>
information	1.2	Effective questioning, active listening and speaking skills are used to gather and convey information.
	1.3	Appropriate <i>medium</i> is used to transfer information and ideas
	1.4	Appropriate non- verbal communication is used.
	1.5	Appropriate lines of communication with supervisors and colleagues are identified and followed.
	1.6	Defined workplace procedures for the location and storage of information are used.
	1.7	Personal interaction is carried out clearly and concisely.
2. Participate in	2.1	Team meetings are attended on time.
workplace meetings and discussions	2.2	Own opinions are clearly expressed and those of others are listened to without interruption.
	2.3	Meeting inputs are consistent with the meeting purpose and established <i>protocols.</i>
	2.4	<i>Workplace interactions</i> are conducted in a courteous manner.
	2.5	Questions about simple routine workplace procedures and maters concerning working conditions of employment are asked and responded to.
	2.6	Meetings outcomes are interpreted and implemented.
 Complete relevant work related 	3.1	Range of forms relating to conditions of employment is completed accurately and legibly.
documents	3.2	Workplace data is recorded on standard workplace forms and documents.
	3.3	Basic mathematical processes are used for routine calculations.
	3.4	Errors in recording information on forms/ documents are identified and properly acted upon.
	3.5	Reporting requirements to supervisor are completed according to organizational guidelines.

RANGE OF VARIABLES

VARIABLE	RANGE		
1. Appropriate sources	1.1	Team members	
	1.2	Suppliers	
	1.3	Trade personnel	
	1.4	Local government	
	1.5	Industry bodies	
2. Medium	2.1	Memorandum	
	2.2	Circular	
	2.3	Notice	
	2.4	Information discussion	
	2.5	Follow-up or verbal instructions	
	2.6	Face to face communication	
3. Storage	3.1	Manual filing system	
	3.2	Computer-based filing system	
4. Forms	4.1	Personnel forms, telephone message forms, safety reports	
5. Workplace	5.1	Face to face	
interactions	5.2	Telephone	
	5.3	Electronic and two way radio	
	5.4	Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams	
6. Protocols	6.1	Observing meeting	
	6.2	Compliance with meeting decisions	
	6.3	Obeying meeting instructions	

1. Critical aspects of	Asse	Assessment requires evidence that the candidate:			
competency	1.1	Prepared written communication following standard format of the organization			
	1.2	Accessed information using communication equipment			
	1.3	Made use of relevant terms as an aid to transfer information effectively			
	1.4	Conveyed information effectively adopting the formal or informal communication			
2. Underpinning	2.1	Effective communication			
knowledge	2.2	Different modes of communication			
	2.3	Written communication			
	2.4	Organizational policies			
	2.5	Communication procedures and systems			
	2.6	Technology relevant to the enterprise and the individual's work responsibilities			
3. Underpinning skills	3.1	Follow simple spoken language			
	3.2	Perform routine workplace duties following simple written notices			
	3.3	Participate in workplace meetings and discussions			
	3.4	Complete work related documents			
	3.5	Estimate, calculate and record routine workplace measures			
	3.6	Basic mathematical processes of addition, subtraction, division and multiplication			
	3.7	Ability to relate to people of social range in the workplace			
	3.8	Gather and provide information in response to workplace Requirements			
4. Resource	The f	ollowing resources MUST be provided:			
implications	4.1	Fax machine			
	4.2	Telephone			
	4.3	Writing materials			
	4.4	Internet			
5. Method of	Com	petency MUST be assessed through:			
assessment	5.1	Direct observation with questioning			
	5.2	Oral interview and written test			
6. Context of assessment	6.1	Competency may be assessed individually in the actual workplace or through accredited institution			

UNIT OF COMPETENCY : WORK IN A TEAM ENVIRONMENT

UNIT CODE : 500311106

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Describe team role and scope	1.1	The role and objective of the team is identified from available sources of information.
	1.2	Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources.
2. Identify own role and responsibility within	2.1	Individual role and responsibilities within the team environment are identified.
team	2.2	Roles and responsibility of other team members are identified and recognized.
	2.3	Reporting relationships within team and external to team are identified.
3. Work as a team member	3.1	Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives.
	3.2	Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and workplace context .
	3.3	Observed protocols in reporting using standard operating procedures.
	3.4	Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

RANGE OF VARIABLES

VARIABLE		RANGE
1. Role and objective of team	1.1	Work activities in a team environment with enterprise or specific sector
	1.2	Limited discretion, initiative and judgment maybe demonstrated on the job, either individually or in a team environment
2. Sources of	2.1	Standard operating and/or other workplace procedures
information	2.2	Job procedures
	2.3	Machine/equipment manufacturer's specifications and instructions
	2.4	Organizational or external personnel
	2.5	Client/supplier instructions
	2.6	Quality standards
	2.7	OHS and environmental standards
3. Workplace context	3.1	Work procedures and practices
	3.2	Conditions of work environments
	3.3	Legislation and industrial agreements
	3.4	Standard work practice including the storage, safe handling and disposal of chemicals
	3.5	Safety, environmental, housekeeping and quality guidelines

1. Critical aspects of	Asse	ssment requires evidence that the candidate:
competency	1.1	Operated in a team to complete workplace activity
	1.2	Worked effectively with others
	1.3	Conveyed information in written or oral form
	1.4	Selected and used appropriate workplace language
	1.5	Followed designated work plan for the job
	1.6	Reported outcomes
2. Underpinning	2.1	Communication process
knowledge	2.2	Team structure
	2.3	Team roles
	2.4	Group planning and decision making
3. Underpinning skills	3.1	Communicate appropriately, consistent with the culture of the workplace
4. Resource	The f	ollowing resources MUST be provided:
implications	4.1	Access to relevant workplace or appropriately simulated environment where assessment can take place
	4.2	Materials relevant to the proposed activity or tasks
5. Method of	Com	petency may be assessed through:
assessment	5.1	Observation of the individual member in relation to the work activities of the group
	5.2	Observation of simulation and or role play involving the participation of individual member to the attainment of organizational goal
	5.3	Case studies and scenarios as a basis for discussion of issues and strategies in teamwork
6. Context of assessment	6.1	Competency may be assessed in workplace or in a simulated workplace setting
	6.2	Assessment shall be observed while task are being undertaken whether individually or in group

UNIT OF COMPETENCY	:	PRACTICE CAREER PROFESSIONALISM
UNIT CODE	:	500311107
UNIT DESCRIPTOR	:	This unit covers the knowledge, skills and attitudes in promoting career growth and advancement.

	ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1.	Integrate personal objectives with	1.1	Personal growth and work plans are pursued towards improving the qualifications set for the profession.
	organizational goals	1.2	Intra and interpersonal relationships is are maintained in the course of managing oneself based on performance evaluation.
		1.3	Commitment to the organization and its goal is demonstrated in the performance of duties.
2.	Set and meet work priorities	2.1	Competing demands are prioritized to achieve personal, team and organizational goals and objectives.
		2.2	Resources are utilized efficiently and effectively to manage work priorities and commitments.
		2.3	Practices along economic use and maintenance of equipment and facilities are followed as per established procedures.
3.	3. Maintain professional growth and	3.1	Trainings and career opportunities are identified and availed of based on job requirements.
	development	3.2	Recognitions are -sought/received and demonstrated as proof of career advancement.
		3.3	<i>Licenses and/or certifications</i> relevant to job and career are obtained and renewed.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Evaluation	1.1 Performance Appraisal
	1.2 Psychological Profile
	1.3 Aptitude Tests
2. Resources	2.1 Human
	2.2 Financial
	2.3 Technology
	2.3.1 Hardware
	2.3.2 Software
3. Trainings and career	3.1 Participation in training programs
opportunities	3.1.1 Technical
	3.1.2 Supervisory
	3.1.3 Managerial
	3.1.4 Continuing Education
	3.2 Serving as Resource Persons in conferences and workshops
4. Recognitions	4.1 Recommendations
	4.2 Citations
	4.3 Certificate of Appreciations
	4.4 Commendations
	4.5 Awards
	4.6 Tangible and Intangible Rewards
5. Licenses and/or	5.1 National Certificates
certifications	5.2 Certificate of Competency
	5.3 Support Level Licenses
	5.4 Professional Licenses

1. Critical aspects of	Asse	Assessment requires evidence that the candidate:			
competency	1.1	Attained job targets within key result areas (KRAs)			
	1.2	Maintained intra - and interpersonal relationship in the course of managing oneself based on performance evaluation			
	1.3	Completed trainings and career opportunities which are based on the requirements of the industries			
	1.4	Acquired and maintained licenses and/or certifications according to the requirement of the qualification			
2. Underpinning knowledge	2.1	Work values and ethics (Code of Conduct, Code of Ethics, etc.)			
	2.2	Company policies			
	2.3	Company-operations, procedures and standards			
	2.4	Fundamental rights at work including gender sensitivity			
	2.5	Personal hygiene practices			
3. Underpinning skills	3.1	Appropriate practice of personal hygiene			
	3.2	Intra and Interpersonal skills			
	3.3	Communication skills			
4. Resource	The f	ollowing resources MUST be provided:			
implications	4.1	Workplace or assessment location			
	4.2	Case studies/scenarios			
5. Method of	Com	petency may be assessed through:			
assessment	5.1	Portfolio Assessment			
	5.2	Interview			
	5.3	Simulation/Role-plays			
	5.4	Observation with questioning			
	5.5	Third Party Reports			
	5.6	Exams and Tests			
6. Context of assessment	6.1	Competency may be assessed in the work place or in a simulated work place setting			

UNIT OF COMPETENCY PROCEDURES	:	PRACTICE OCCUPATIONAL HEALTH AND SAFETY
UNIT CODE	:	500311108
UNIT DESCRIPTOR	:	This unit covers the outcomes required to comply with regulatory and organizational requirements for occupational health and safety.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Identify hazards and risks	1.1	Safety regulations and workplace safety and hazard control practices and procedures are clarified and explained based on organization procedures.
	1.2	<i>Hazards/risks</i> in the workplace and their corresponding indicators are identified to minimize or eliminate risk to coworkers, workplace and environment in accordance with organization procedures.
	1.3	Contingency measures during workplace accidents, fire and other emergencies are recognized and established in accordance with organization procedures.
2. Evaluate hazards and risks	2.1	Terms of maximum tolerable limits which when exceeded will result in harm or damage are identified based on threshold limit values (TLV).
	2.2	Effects of the hazards are determined.
	2.3	OHS issues and/or concerns and identified safety hazards are reported to designated personnel in accordance with workplace requirements and relevant workplace OHS legislation.
3. Control hazards and risks	3.1	Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace are consistently followed.
	3.2	Procedures for dealing with workplace accidents, fire and emergencies are followed in accordance with organization OHS policies.
	3.3	Personal protective equipment (PPE) is correctly used in accordance with organization OHS procedures and practices.
	3.4	Appropriate assistance is provided in the event of a workplace emergency in accordance with established organization protocol.
4. Maintain OHS awareness	4.1	<i>Emergency-related drills and trainings</i> are participated in as per established organization guidelines and procedures.
	4.2	OHS personal records are completed and updated in accordance with workplace requirements.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Safety regulations	 May include but are not limited to: 1.1 Clean Air Act 1.2 Building code 1.3 National Electrical and Fire Safety Codes 1.4 Waste management statutes and rules 1.5 Philippine Occupational Safety and Health Standards 1.6 DOLE regulations on safety legal requirements 1.7 ECC regulations
2. Hazards/risks	 May include but are not limited to: 2.1 Physical hazards – impact, illumination, pressure, noise, vibration, temperature, radiation 2.2 Biological hazards- bacteria, viruses, plants, parasites, mites, molds, fungi, insects 2.3 Chemical hazards – dusts, fibers, mists, fumes, smoke, gasses, vapors 2.4 Ergonomics Psychological factors – over exertion/ excessive force, awkward/static positions, fatigue, direct pressure, varying metabolic cycles Physiological factors – monotony, personal relationship, work out cycle
3. Contingency measures	May include but are not limited to: 3.1 Evacuation 3.2 Isolation 3.3 Decontamination 3.4 (Calling designed) emergency personnel
4. PPE	May include but are not limited to: 4.1 Mask 4.2 Gloves 4.3 Goggles 4.4 Hair Net/cap/bonnet 4.5 Face mask/shield 4.6 Ear muffs 4.7 Apron/Gown/coverall/jump suit 4.8 Anti-static suits
5. Emergency-related drills and training	 5.1 Fire drill 5.2 Earthquake drill 5.3 Basic life support/CPR 5.4 First aid 5.5 Spillage control 5.6 Decontamination of chemical and toxic 5.7 Disaster preparedness/management
6. OHS personal records	 6.1 Medical/Health records 6.2 Incident reports 6.3 Accident reports 6.4 OHS-related training completed

1.	Critical aspects of	Asses	ssment requires evidence that the candidate:
	competency	1.1	Explained clearly established workplace safety and hazard control practices and procedures
		1.2	Identified hazards/risks in the workplace and its corresponding indicators in accordance with company procedures
		1.3	Recognized contingency measures during workplace accidents, fire and other emergencies
		1.4	Identified terms of maximum tolerable limits based on threshold limit value- TLV.
		1.5	Followed Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace
		1.6	Used Personal Protective Equipment (PPE) in accordance with company OHS procedures and practices
		1.7	Completed and updated OHS personal records in accordance with workplace requirements
2.	Underpinning	2.1	OHS procedures and practices and regulations
	knowledge	2.2	PPE types and uses
		2.3	Personal hygiene practices
		2.4	Hazards/risks identification and control
		2.5	Threshold Limit Value -TLV
		2.6	OHS indicators
		2.7	Organization safety and health protocol
		2.8	Safety consciousness
		2.9	Health consciousness
3.	Underpinning	3.1	Practice of personal hygiene
	skills	3.2	Hazards/risks identification and control skills
		3.3	Interpersonal skills
		3.4	Communication skills
4.	Resource	The fo	ollowing resources MUST be provided:
	implications	4.1	Workplace or assessment location
		4.2	OHS personal records
		4.3	PPE
		4.4	Health records
5.	Method of	Comp	petency may be assessed through:
	assessment	5.1	Portfolio Assessment
		5.2	Interview
		5.3	Case Study/Situation
6.	Context of assessment	6.1	Competency may be assessed in the work place or in a simulated work place setting

COMMON COMPETENCIES

UNIT OF COMPETENCY	:	MAINTAIN AN EFFECTIVE RELATIONSHIP WITH CLIENTS AND CUSTOMERS
UNIT CODE	:	HCS516201
UNIT DESCRIPTOR	:	This unit covers the knowledge, skills and attitudes and values required in building and maintaining an effective relationship with clients, customers and the public.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Maintain a clean and hygienic environment	1.1	Uniform and personal grooming maintained to assignment requirements.
	1.2	Personal presence maintained according to employer standards.
	1.3	Visible work area kept tidy and uncluttered.
	1.4	Equipment stored according to assignment requirements.
2. Meet client/customer requirements	2.1	<i>Client requirements</i> identified and understood by referral to <i>assignment instructions</i> .
	2.2	Client requirements met according to the assignment instructions.
	2.3	Changes to <i>client's needs and requirements</i> monitored and <i>appropriate action taken</i> .
	2.4	All communication with client or <i>customer</i> is cleared and complied with assignment requirements.
3. Build credibility with customers/clients	3.1	Client expectations for reliability, punctuality and appearance adhered to.
	3.2	Possible causes of client/customer dissatisfaction identified, dealt with recorded according employer policy.
	3.3	Client fully informed of all relevant matters in a timely manner and according to agreed reporting procedures.

RANGE OF VARIABLES

	VARIABLE	RANGE	
1.	Personal Presence	May include but not limited to:	
		1.1 Stance	
		1.2 Posture	
		1.3 Body Language	
		1.4 Demeanor	
		1.5 Grooming	
2.	Employer Standards	May include but not limited to:	
		2.1 Standing Orders	
3.	Client Requirements	May include but are not limited to:	
		3.1 Assignment instructions	
		3.2 Post Orders	
		3.3 Scope to modify instructions/orders in light of changed situations	
4.	Assignment	May be conveyed in:	
	Instructions	4.1 Writing	
		4.2 Verbally	
		4.3 Electronically	
5.	Client Needs and	May be detected by:	
	Requirements	5.1 Review of the client brief and/or assignment instructions	
		5.2 Discussion with the client/customer	
6.	Appropriate Action	May include:	
		6.1 Implementing required changes	
		6.2 Referring to appropriate employer personnel	
		6.3 Clarification of client needs and instructions	
		6.4 Hazard reports	
7.	Customers	May include:	
		7.1 All members of the public	

1.	Critical aspects of competency	 Assessment requires evidence that the candidate: 1.1 Maintained a professional image 1.2 Interpreted client/customer requirements from information 1.3 Dealt successfully with a variety of client/customer interactions 1.4 Monitored and acted on changing client or customer needs 1.5 Met client/customer requirements 1.6 Built credibility with customers/client
2.	knowledge	 2.2 Occupational health and safety requirement for the assignment 2.3 Assignment Instructions
3.	Underpinning skills	 3.1 Attention to detail when completing client/employer documentation 3.2 Interpersonal and communication skills required in client contact assignments 3.3 Customer service skills required to meet client/customer needs 3.4 Punctuality 3.5 Customer Service 3.6 Telephone Technique 3.7 Problem Solving and Negotiation 3.8 Maintaining Records
4.	Resource implications	 The following resources MUST be provided 4.1 Assessment Centers/Venues 4.2 Accredited Assessors 4.3 Modes of Assessment 4.4 Evaluation Reports 4.5 Access to a relevant venue, equipment and materials 4.6 Assignment Instructions 4.7 Logbooks 4.8 Operational manuals and makers/customers' instructions 4.9 Assessment record book
5.	Method of assessment	 Competency may be assessed through: 5.1 Written Test 5.2 Demonstration with questioning 5.3 Observation with questioning
6.	Context of assessment	6.1 Assessment may be done in the workplace or in a simulated workplace setting.

UNIT OF COMPETENCY	:	MANAGE OWN PERFORMANCE
UNIT CODE	:	HCS516202
UNIT DESCRIPTOR	:	This unit of competency covers the knowledge, skills and attitudes in effectively managing own workload and quality work.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Plan for completion of	1.1	Tasks accurately identified.
own workload	1.2	Priority allocated to each task.
	1.3	Time lines allocated to each task or series of tasks.
	1.4	Tasks deadlines known and complied with whenever possible.
	1.5	Work schedules are known and completed with agreed time frames.
	1.6	Work plans developed according to assignment requirements and employer policy.
	1.7	Uncompleted work or tasks detailed and responsibility for completion passed to incoming shift or other appropriate persons.
2. Maintain quality of performance	2.1	Personal performance continually monitored against agreed performance standards .
	2.2	Advice and guidance sought when necessary to achieve or maintain agreed standards.
	2.3	Guidance from management applied to achieve or maintain agreed standards.
	2.4	Standard of work clarified and agreed according employer policy and procedures.
3. Build credibility with customers/clients	3.1	Client expectations for reliability, punctuality and appearance adhered to.
	3.2	Possible causes of client/customer dissatisfaction identified, dealt with, recorded and in accordance with employer policy.
	3.3	Client fully informed of all relevant matters in a timely manner.

RANGE OF VARIABLES

VARIABLE		RANGE
1. Tasks	1.1	May be identified through:
		1.1.1 Assignment Instructions
		1.1.2 Verbal Instructions by Senior Staff
		1.1.3 Policy Documents
		1.1.4 Duty Statements
		1.1.5 Self Assessment
	1.2	May be:
		1.2.1 Daily tasks
		1.2.2 Weekly tasks
		1.2.3 Regularly or irregularly occurring tasks
2. Performance	May i	nclude:
Standards	2.1	Assignment Instructions
	2.2	Procedures established in policy documents

1. Critical aspects of	Asse	Assessment requires evidence that the candidate:			
competency	1.1	Planned for completion of own workload			
	1.2	Assessed verbal or written work plan through observation and discussion of site and employer requirements			
	1.3	Demonstrated capacity to complete task within specified time frame			
	1.4	Maintained quality of own performance			
2. Underpinning	2.1	Sight and assignment requirements			
knowledge	2.2	Employer policy on performance management			
	2.3	Indicators of appropriate performance for each area of responsibility			
	2.4	Steps for improving or maintaining performance			
3. Underpinning skills	3.1	Capacity to plan and prioritize work loads and requirements			
	3.2	Time and task management			
4. Resource	The f	The following resources MUST be provided:			
implications	4.1	Assessment Centers/Venues			
	4.2	Accredited Assessors			
	4.3	Modes of Assessment			
	4.4	Evaluation Reports			
	4.5	Access to relevant venue, equipment and materials			
	4.6	Assignment Instructions			
	4.7	Logbooks			
	4.8	Operational manuals and makers'/customers' instructions			
	4.9	Assessment Instruments, including personal planner and assessment record book			
5. Method of	Comp	petency may be assessed through:			
assessment	5.1	Written Test			
	5.2	Demonstration with questioning			
	5.3	Observation with questioning			
	5.4	Oral questioning/Interview			
6. Context of assessment:	6.1	Assessment may be done in the workplace or in a simulated workplace setting.			

UNIT OF COMPETENCY : FOLLOW OCCUPATIONAL HEALTH AND SAFETY POLICIES IN DENTAL LABORATORY FACILITIES

UNIT CODE : HCS346204

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required in applying relevant OHS legislation and codes of practice, including duties and responsibilities for all parties under general duty of care.

	ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1	Follow workplace procedures for	1.1	Hazards in the work area are recognized and reported to supervisor in accordance with workplace procedures.
	hazard identification and risk control	1.2	<i>Workplace procedures and work instructions for controlling risks</i> , including infection control, are followed accurately.
		1.3	<i>Workplace procedures</i> for dealing with accidents, fires and emergencies are followed where necessary.
2	Contribute to the management of	2.1	OHS issues are raised with designated personnel and co- workers as appropriate.
	OHS	2.2	Contributions are made as appropriate to workplace OHS discussions.
3	Utilize and	3.1	The environment is kept clean and tidy.
	implement strategies as	3.2	Personal hygiene practices are followed.
directed to p infection in th workplace	directed to prevent infection in the workplace	3.3	Any <i>items that may be contaminated</i> are disposed of safely.
4	Utilize strategies to	4.1	Nominated rest time and breaks are taken.
	prevent stress overload	4.2	Sources of stress are identified and issues raised with supervisor.
		4.3	Work roles are clarified and followed.
5	Work in a safe	5.1	Defined procedures are followed to ensure personal safety.
manner	manner	5.2	All work is carried out in a manner which ensures safety of self and others
		5.3	Organizational security measures are followed.
		5.4	Safe manual handling procedures are followed.

RANGE OF VARIABLES

	VARIABLE		RANGE
1.	Workplace	Mayi	include:
	procedures for	1.1	Manual handling techniques
	controlling risks	1.2	Safe handling, storage and disposal of inflammable or potentially dangerous substances
		1.5	Strategies for reducing the amount of manual handling required
2.	Stress	Mayi	include:
		2.1	Health problems
		2.2	Changes in behavior
		2.3	Frequent absences
		2.4	Negative attitudes
		2.5	Unawareness of own stress levels
3.	Rest time and	Mayi	include:
	breaks	3.1	Morning and afternoon tea, lunch, dinner breaks
4.	Workplace	Mayi	include:
	procedures	4.1	Grievance procedures
		4.2	Team meetings
		4.3	Incident reports
		4.4	Debriefing procedures following crisis
		4.5	Smoke free environment
5.	Items that may be	Mayi	include:
	contaminated	5.1	Work surfaces
		5.2	Clothing
6.	Working in a	Mayi	include:
	manner that	6.1	Carrying communication equipment
	ensures personal safety	6.2	Using personal protection equipment
	Salety	6.3	Safe work practices for handling sharps and other hazards in dental laboratory practice
		6.4	Carrying alarms
		6.5	Maintaining infection control in dental laboratory practice
7.	Organizational	Mayi	include:
	security measures	7.1	Locking doors
		7.2	Alarm system
		7.3	Contracted security personnel

		Asses	ssment requires evidence that the candidate:
1.	Critical aspects of	1.1	Worked safely and followed OHS policies and procedures in
	competency		dental laboratory practice
		1.2	Complied with DOH infection control guidelines
		1.3	Contributed to the management of OHS
		1.4	Utilized and implemented strategies as directed to prevent
			infection in the workplace
		1.5	Utilized strategies to prevent stress overload
		1.6	Worked in a safe manner
		21	Compliance with OHS policy and procedures and infection
2.	Underpinning		control guidelines and procedures
	knowledge	22	Knowledge of potential hazards in the workplace
	5	2.3	Knowledge of Jaboratory waste disposal methods
		2.0	Knowledge of personal hydrene and personal protection
		2.7	including immunization
		25	Knowledge of legislative requirements and best practice
		2.0	approaches to OHS
		2.6	Emergency procedures
		3.1	Manual handling techniques
3.	Underpinning skills	3.2	Safe handling techniques
		3.3	Correct use of equipment, instruments and materials in
			accordance with manufacturer specifications
		3.4	Technology used to work safely and competently
		3.5	Safe work practices to prevent or minimize risk
		3.6	Reading and writing skills
		3.7	Oral communication skills
4.	Resource	The f	ollowing resources MUST be provided:
	implications	4.1	Relevant dental laboratory practice/organizational policies and
	·		procedures manuals such as:
			4.1.1 Incident reporting procedures
			4.1.2 OHS policy and procedures
			4.1.3 Infection control guidelines (DOH)
			4.1.4 Waste management policies
			4.1.5 Relevant state legislation
			4.1.6 Manufacturer's instructions for the use of relevant
			equipment instruments and materials
			4 1 7 Material Safety Data Sheets (MSDs)
5	Method of	Comp	petency may be assessed through:
	assessment	5.1	Observation with questioning
		5.2	Oral questioning/Interview
		5.3	Portfolio
		5.4	Third Party Report
6	Context of	6.1	Competency may be assessed in the workplace or in a
	assessment		simulated work setting.

UNIT OF COMPETENCY : MAINTAIN INFECTION CONTROL IN DENTAL LABORATORY PRACTICE

UNIT CODE : HCS346205

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to comply with infection control procedures before, during and after health care procedures.

	ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1	Monitor and maintain the	1.1	Appropriate personal protective wear is used during cleaning of equipment and surfaces.
	cleanliness of the dental laboratory	1.2	Appropriate disinfectants and cleaning equipment are selected, prepared and used on surfaces in accordance with the manufacturer's specification.
		1.3	Used surface covers, if applicable, are removed and replaced in a manner to prevent cross contamination.
		1.4	Cleaning equipment is correctly stored.
		1.5	All <i>surfaces</i> including internal storage units within the dental laboratory are monitored and maintained for cleanliness.
2	Clean and disinfect dental laboratory /instruments and	2.1	Dental laboratory instruments and equipment are cleaned of bio-burden and lubricated, where appropriate, prior to cleaning and disinfecting.
	equipment	2.2	Dental laboratory instruments and equipment are checked for faults and disassembled where appropriate.
		2.3	Prior to cleaning of dental laboratory instruments and equipment are loaded safely and effectively.
		2.4	Appropriate cleaning procedures are carried out in the correct sequence and duration in accordance with manufacturer specifications.
		2.5	Regular maintenance program including faults and incidences are recognized, reported and documented.

	ELEMENT		PERFORMANCE CRITERIA
2	Maintain hygiana	2.1	Hand weaking presedures are correctly followed
3	and personal	J. I	
	protection	3.2	Open cuts and abrasions are covered with a waterproof dressing.
		3.3	Appropriate <i>personal protection wear</i> is correctly worn.
		3.4	Immunization is undertaken in accordance with current recommendations for dental health care worker.
		3.5	All work is carried out in a manner that minimizes the risk of cross contamination and complies with OHS policy and procedures.
		3.6	Hazards in the dental laboratory is recognized and reported to operator.
		3.7	Appropriate procedures for dealing with accidents, including sharp injuries, are followed correctly.
4	Dispose of dental laboratory waste	4.1	Appropriate protective clothing is worn or used in accordance with OHS policy and procedures when handling waste.
	safely	4.2	<i>Waste is segregated</i> , <i>contained</i> , stored and transported correctly.
		4.3	Damaged and/or pre-packed items are disposed of safely.
		4.4	Waste is disposed of safely.
5	Undertake the necessary	5.1	Risks of cross contamination are identified and appropriate responses implemented within dental practice.
	measures to ensure prevention of transmission of	5.2	Clean, contaminated and administrative zones are clearly identified and maintained.
	infection	5.3	Instruments, materials, medicaments and equipment are set up prior to commencement of treatment where appropriate.
		5.4	One-way workflow from clean to dirty zone is maintained.
		5.5	Risk of transmission of infection is minimized in all dental laboratory related and administrative procedures.
		5.6	Spills are removed correctly.

RANGE OF VARIABLES

	VARIABLE		RANGE		
1.	Infection control	May include but are not limited to:			
	guidelines and procedures	1.1	Current DOH guidelines for infection control in health care settings		
		1.2	Standard Precautions and Additional Precautions as defined by DOH		
		1.3	Dental laboratory practice/organizational policy procedures and infection control guidelines and procedures		
		1.4	Material Safety Data Sheets (MSDS)		
		1.5	Local government ordinances		
		1.6	Legislative requirements		
2.	Personal protective	May	include but not limited to:		
	wear	2.1	Sterile and non sterile gloves including heavy duty		
		2.2	Masks		
		2.3	Eye protection		
		2.4	Enclosed footwear		
		2.5	Gowns		
		2.6	Aprons		
3.	Cleaning equipment	May	include but is not limited to:		
		3.1	Ultrasonic cleaner		
		3.2	Manual cleaning with a range of brushes		
		3.3	Drying		
		3.4	Buckets and mops		
4	Waste segregation	May	include but is not limited to:		
		4.1	Clinical and related waste		
		4.2	Infectious waste		
		4.3	Sharps		
		4.4	General waste		
		4.5	Other hazardous substances		
5	Requirements for	May	be determined by:		
	safe disposal of waste	5.1	Main drainage		
		5.2	Local government ordinances		
		5.3	Material Safety Data Sheet (MSDS)		

		Asses	sment requires evidence that the candidate:
1.	Critical aspects of	11	Demonstrated knowledge of infection risks in health
	competency		environment and specifically in dental laboratory practice
	i j	12	Complied with current DOH infection control quidelines and
		1.2	procedures OHS and legislative requirements
		12	Handled waste asfoly managed presedures in appardance
		1.5	Handled waste salely managed procedures in accordance
			with legislative requirements
		1.4	Selected and used appropriate cleaning agents for particular
			surfaces and equipment in accordance with the
			manufacturer's specifications
~		2.1	Knowledge on how infection is spread, cross infection and
2.	Underpinning		prevention strategies
	knowledge	2.2	Knowledge of relevant OHS policies and procedures
		2.3	Limitations, properties and precautions required of
			disinfectants and decontaminates
		2.4	Knowledge of potential hazards in a health environment
		2.5	Knowledge of currently available vaccinations against
			transmissible disease
		2.6	Knowledge of dental laboratory waste disposal methods
		3.1	Applying standard and additional precautions
3.	Underpinning skills	3.2	Using safe work practices to minimize the risk of transmission
		0.2	of infection
		33	Selecting and using appropriate chemicals in cleaning and
		0.0	sanitizing
		31	Using correct hand washing and hand care techniques
		3.4	Using correct hygiono procedures
		2.5	Selecting and using equipment and elegning agents effectively
		3.0	Using presedures appropriate to the cleaning agents electively
		3.7	Using procedures appropriate to the cleaning area and
			purpose
		3.8	Minimizing disruption to the work environment
		3.9	Minimizing safety hazards for self and others
		3.10	Using time management strategies to set priorities
		3.11	Using technology to work safely and competently
	_	The fo	ollowing resources MUST be provided:
4.	Resource	4.1	Relevant dental laboratory practice/organizational policy and
	implications		procedures
		4.2	Incident reporting procedures
		4.3	Occupational health and safety policy and procedures
		4.4	Infection control guidelines
		4.5	Waste management policies
		4.6	Relevant state legislations
		4.7	Manufacturer's instructions for the use of relevant equipment
			instruments, medicaments, materials and Material Safety Data
			Sheets (MSDS)
		48	Cleaning agents currently used in the workplace
4.	Resource implications	3.5 3.6 3.7 3.8 3.9 3.10 3.11 The fo 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8	Using correct hygiene procedures Selecting and using equipment and cleaning agents effectively Using procedures appropriate to the cleaning area and purpose Minimizing disruption to the work environment Minimizing safety hazards for self and others Using time management strategies to set priorities Using technology to work safely and competently ollowing resources MUST be provided: Relevant dental laboratory practice/organizational policy and procedures Incident reporting procedures Occupational health and safety policy and procedures Infection control guidelines Waste management policies Relevant state legislations Manufacturer's instructions for the use of relevant equipment, instruments, medicaments, materials and Material Safety Data Sheets (MSDS) Cleaning agents currently used in the workplace

5. Method of	Competency may be assessed through:
assessment	5.1 Written Test/Examination
	5.2 Demonstration with questioning
	5.3 Observation with questioning
	5.4 Portfolio
	5.5 Third Party Report
6. Context of	6.1 Competency may be assessed in the workplace or in a
assessment	simulated work setting.

UNIT TITLE	:	OPERATE A PERSONAL COMPUTER
UNIT CODE	:	ICT311201
UNIT DESCRIPTOR	:	This unit defines the competency required to operate a personal computer by: starting the PC, logging in, using and working with files, folders and programs, saving work, and closing down the PC.

	ELEMENT	PERFORMANCE CRITERIA <i>Italicized Bold</i> terms are elaborated in the Range of Variables
1.	Start the	1.1 The <i>peripheral devices</i> are properly connected
	computer	switched on
		1.3 Proper logging in and logging off is successfully done
		1.4 The operating system features and functions are accessed and navigated
		1.5 Hardware configuration and other system features are checked
2	Arrange and	2.1 The desktop screen or Windows elements are changed as needed
	customize	2.2 Desktop icons are added, renamed, moved, copied or deleted
	desktop display/	2.3 The <i>online help functions</i> are accessed or used as needed
	Windows	2.4 Desktop icons of <i>application programs</i> are selected, opened and closed
	seuings	2.5 Properties of icons are displayed
		2.6 Computer or desktop settings are saved and restored
3	Work with files	3.1 A file or folder is created, opened, moved, renamed or copied
0.	and folders (or	3.2 Files are located, deleted and restored
	directories)	3.3 Details and properties of files and folders are displayed or viewed
		3.4 <i>Various files</i> are organized for easy lookup and use
		3.5 Files and information are searched
		3.6 Disks are checked, erased or formatted as necessary
4.	Work with user	4.1 Application programs are added, changed, removed or ran
	application	4.2 User software or application program are installed, updated and
	programs	4.3 Information/data are moved between documents or files
		5.1 Printer is added or installed and correct printer settings is ensured
5.	Print	5.2 Default printer is assigned accordingly
	information	5.3 Information or document is printed on the installed printer
		5.4 Progress of print jobs are viewed and deleted as required
6	Shut down	6.1 All open application programs are closed
0.	computer	6.2 Computer and peripheral devices are properly shut down

RANGE OF VARIABLES

VARIABLE	RANGE
1. Peripheral device	This may include but is not limited to: 1.1 mouse 1.2 keyboard 1.3 monitor or visual display unit 1.4 printer 1.5 scanner
2. Computer	May include: 2.1 Laptops/notebooks 2.2 Workstations 2.3 Servers 2.4 other personal computer devices
3. Application programs	Can include: 3.1 user programs 3.2 database programs 3.3 word processors 3.4 email programs 3.5 Internet browsers 3.6 system browsers 3.7 spreadsheets
4. Operating system	May include but is not limited to the various versions and variants of: 4.1 Windows 4.2 NT 4.3 Mac OS 4.4 Linux 4.5 Solaris 4.6 Unix
5. System features	May include but is not limited to the operating system features and hardware features like: 5.1 memory size 5.2 disk capacities 5.3 video cards 5.4 USBs 5.5 Modems 5.6 1394 and LAN connectors 5.7 SD and PC cards 5.8 wireless and infrared connections.

VARIABLE	RANGE		
6. Online help functions	6.1 An instruction manual, or a portion of the manual, integrated and accessible from within the program or software being used.		
7. Properties	Indicates the description of the file or folder to include the: 7.1 file name 7.2 type of file 7.3 file size 7.4 date created and modified 7.5 attributes (hidden, read-only).		
8. Various files	 8.1 Documents 8.2 Records 8.3 Pictures 8.4 Music 8.5 Video 		
9. Disks	May include but is not limited to: 9.1 Floppy disks 9.2 CDs 9.3 CD-RW (Compact discs-Read/Write) 9.4 DVD RW 9.5 zip disks 9.6 flash drives 9.7 memory sticks 9.8 hard drives		
10. Printer settings	The properties of the printer that enables it to work includes: 10.1 page layout 10.2 paper size 10.3 ink/cartridge type 10.4 number of copies 10.5 page orientation		

1.	Critical aspects of Competency	1.1	Assessment must confirm the ability to utilize software, navigate the desktop, using system features to perform tasks and save results of work.		
2. Underpinning		Knowledge includes:			
Knowledge	Knowledge	2.1	Keyboard layout and functions		
		2.2	Computer functions		
		2.3	Basic parts of a computer and various hardware components		
		2.4	Storage devices and file concepts		
		2.5	Basic software operation and functionalities		
3.	Underpinning	Skill	s include:		
	Skills	3.1	Saving and retrieving files to and from various folders or disk storage		
		3.2	Mouse and keyboarding skills for running software applications		
		3.3	Reading and writing at a level where basic workplace documents are understood		
		3.4	Clear ability to communicate with peers and supervisors		
		3.5	Interpretation of user manuals and help functions		
		3.6	The ability to carry out written and verbal instructions using a personal computer whether standalone or in a networked environment		
4.	Resource Implications	To d reso	emonstrate competence in this unit access to the following urces will be required:		
		4.1	A personal computer		
		4.2	A printer		
		4.3	Mouse and keyboard		
		4.4	Basic systems software		
5.	Methods of	Com	petency may be assessed through:		
	Assessment	5.1	Observation in a workplace or simulated environment		
		5.2	Third party reports		
		5.3	Exams and tests		
		5.4	Demonstration of required skills		
		5.5	Interviews		
6.	Context for Assessment	6.1	Competency may be assessed in the workplace or in a simulated work environment.		

CORE COMPETENCIES

UNIT OF COMPETENCY	:	ARRANGE ARTIFICIAL TEETH FOR COMPLETE DENTURES
UNIT CODE	:	HCS322328
UNIT DESCRIPTOR	:	This unit covers the knowledge, skills and attitudes required in the selection, arrangement and wax contouring of a complete denture.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Prepare case for	1.1	Artificial teeth are selected to work order.
setting of teeth	1.2	Bases and rims are modified as required for positioning of teeth.
2 Arrange artificial	2.1	Work order is followed.
teeth	2.2	Teeth are positioned to achieve aesthetics and centric occlusion, balanced articulation and balanced occlusion.
	2.3	Teeth are secured in wax and contoured to gingival outline.
3. Wax up denture for	3.1	Wax is applied as required.
try-in	3.2	Facial and lingual aspects are contoured.
	3.3	Muscle attachments are located and relieved.
	3.4	Peripheral extensions are smoothened and rounded.
	3.5	Distal extensions are confirmed.

RANGE OF VARIABLES

VARIABLE	RANGE	
1. Dentures	May include but are not limited to:	
	1.1 Complete maxillary or complete mandibular	
	1.2 Combined complete maxillary and complete mandibular.	

1. Critical aspect of competency	 Assessment requires evidence that the candidate: 1.1 Prepared case for setting of teeth 1.2 Arranged artificial teeth 1.3 Waxed up denture for try-in 1.4 Complied with infection control policies and procedures 1.5 Followed OH&S policies and procedures
2. Underpinning knowledge	 2.1 Range of articulators 2.2 Selection of artificial teeth 2.3 Articulation and occlusion 2.4 Tooth morphology 2.5 Current DOH infection control guidelines 2.6 Relevant material science for carrying out procedures 2.7 OH&S and material safety data sheets 2.8 Industry Codes of Practice 2.9 Relevant laws as appropriate 2.10 Housekeeping and maintenance procedures
3. Underpinning skills	 3.1 Manual dexterity 3.2 Maintaining a healthy and safe working environment 3.3 Selecting artificial teeth 3.4 Maintaining personal hygiene 3.5 Planning and organizing work activities
4. Resource implications	 The following resources <u>MUST</u> be provided: 4.1 A real or simulated dental laboratory environment 4.2 Relevant documentation such as: 4.2.1 industry codes of practice 4.2.2 relevant laws as appropriate 4.2.3 housekeeping/maintenance procedures 4.3 Range of articulators 4.3 A qualified workplace assessor and/or a technical expert working in partnership with assessor
5. Method of assessment	Competency may be assessed through:5.1Demonstration with questioning5.2Written Test/Examination5.3Third Party Report5.4Portfolio
6. Context of assessment	6.1 Competency may be assessed in the workplace or in a simulated workplace setting.

UNIT OF COMPETENCY : SET-UP AND WAX REMOVABLE PARTIAL DENTURES

UNIT CODE : HCS322329

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to setup and wax removable partial dentures.

ELEMENT	PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables		
1. Design acrylic removable partial	1.1	Models are surveyed.	
	1.2	Design is established and transferred to master model.	
dentare	1.3	Undesirable undercuts are blocked out.	
	1.4	Food lines are scribed.	
2 Salaat and propara	2.1	Materials are calcuted according to work order	
z. Select and prepare	Z. I	wateriars are selected according to work order.	
materials	2.2	Shape and dimension of components are established from design.	
3. Arrange artificial teeth	3.1	Teeth are selected and positioned in wax to established aesthetics and function.	
	3.2	Wax is contoured and dentures made suitable for try-in in mouth.	
4. Fabricate retainer	4.1	Components are constructed as required.	
units	4.2	Components are joined as required.	
	4.3	Teeth and components are secured in wax.	
	4.4	Facial and lingual aspects are contoured.	
	4.5	Appliance is secured for processing.	

RANGE OF VARIABLES

VARIABLE	RANGE
1. Material options for base	May include but are not limited to: 1.1 Acrylic 1.2 Light-cured
	1.3 Flexible materials

1. Critical aspect of	Assessment requires evidence that the candidate:		
competency	1.1 Designed acrylic removable partial denture		
. ,	1.2 Selected and prepared materials		
	1.3 Arrange artificial teeth		
	1.4 Fabricated retainer units		
	1.5 Complied with infection control policies and procedures		
	1.6 Followed OH&S policies		
	1.7 Industry Codes of Practice		
	1.8 Relevant laws as appropriate		
	1.9 Housekeeping Maintenance Procedures		
	1.10 Dental Alloys		
2. Underpinning	2.1 Metallurgy - soldering techniques		
knowledge	2.2 Wrought component fabrication techniques		
	2.3 Tooth morphology		
	2.4 Articulation and occlusion		
	2.5 Principles of partial denture design		
	2.6 Relevant material science for carrying out procedures		
	2.7 Duplication techniques		
	2.11 Current DOH infection control guidelines		
3. Underpinning skills	3.1 Manual dexterity		
	3.2 Maintaining a healthy and safe working environment		
	3.3 Investing and packing techniques		
	3.4 Duplicating techniques		
	3.5 Fabricating techniques of wrought components		
	3.6 Maintaining personal nyglene		
	3.7 Planning and organizing work activities		
4. Resource	The following resources MUST be provided:		
implications	4.1 A real or simulated dental laboratory environment		
	4.2 Relevant documentation such as:		
	4.2.1 industry codes of practice		
	4.2.2 state legislation as appropriate		
	4.2.3 housekeeping/maintenance procedures		
	4.3 Dental alloys		
	4.4 A qualified workplace assessor and/or a technical expert		
	working in partnership with the assessor		
5 Mathad of	Competency may be accessed through		
	Competency may be assessed inrough:		
assessment	5.1 Demonstration with questioning		
	5.2 Whiten rest/Examination		
	5.4 Portfolio		
6 Contaxt of	6.1 Assessment may be conducted in the workplace or in a		
0. CONTEXT OF	simulated environment		
assessinent			

UNIT OF COMPETENCY :	WAX, PROCESS AND FINISH ACRYLIC DENTURES AND
APPLIANCES	

UNIT CODE : HCS322330

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes concerned with the process involved in polymerization and finishing of acrylic dentures and appliances.

ELEMENT		PERFORMANCE CRITERIA <i>Italicized terms</i> are elaborated in the Range of Variables
1. Wax case for finish	1.1	Wax is applied as required by work order.
consistent with work order	1.2	Facial and lingual aspects are contoured.
2. Select and prepare	2.1	Appropriate polymer system for case is identified.
materials and	2.2	Appropriate investment technique is identified.
processing	2.3	Appropriate processing cycle is identified.
	2.4	Material is selected from identified polymer system.
	2.5	System components are combined.
	2.6	Materials are allowed to reach application stage.
3. Process denture or	3.1	Appropriate investment techniques are applied.
appliance	3.2	Material is applied to mould.
	3.3	Appropriate processing cycle is applied.
	3.4	Model is divested.
	3.5	Remount on articulator.
4. Grind dentures and	4.1	Centric occlusion is restored.
appliances selectively	4.2	Balanced occlusion is restored.
	4.3	Balanced articulation is restored.
	4.4	Function is restored.
5. Finish denture or appliance	5.1	Denture or appliance is trimmed, shaped and finished according to job specifications.
	5.2	Dentures are disinfected according to current DOH infection guidelines.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Acrylic dentures and	May include but are not limited to:
appliances	1.1 Complete and partial dentures
	1.2 Orthodontic appliances
	1.3 Therapeutic appliances

1. Critical aspect of	Assessment requires evidence that the candidate:
competency	1.1 Waxed case for finish consistent with work orders
	1.2 Selected and prepared materials and processing techniques
	1.3 Processed denture or appliance
	1.4 Grind dentures and appliances selectively
	1.5 Finished denture or appliance
	1.6 Complied with infection control policies and procedures
	1.7 Followed OH&S policies
2. Underpinning	2.1 Relevant material science for carrying out procedures
knowledge	2.2 Tooth morphology and anatomy
	2.3 OH&S and materials safety data sheets
	2.4 Current DOH infection control guidelines
	2.5 Workplace Policy and Procedures Manuals
	2.6 Product Labels and Sources of Product Information
3. Underpinning skills	3.1 Manual dexterity
	3.2 Maintaining a healthy and safe working environment
	3.3 Maintaining personal hygiene
	3.4 Planning and organizing work activities
4. Resource implication	The following resources MUST be provided:
	4.1 Relevant documentation, such as:
	 workplace policy and procedures manuals
	4.2 Access to a range of clients with different requirements
	4.3 A range of equipment and products appropriate to the
	workplace
	4.4 Product labels and sources of product information
	4.5 A qualified workplace assessor or assessment team
5. Method of	Competency may be assessed through:
assessment	5.1 Demonstration with questioning
	5.2 Written Test/Examination
	5.3 Third party Report
	5.4 Portfolio
6. Context of	6.1 Assessment may be conducted in the workplace or in a
assessment	simulated environment

UNIT OF COMPETENCY : FABRICATE THERMO-FORMED BASES AND APPLIANCES

UNIT CODE : HCS322334

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitude in fabricating thermo-formed bases and appliances.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Prepare model	1.1	Work order is interpreted.
	1.2	Outline is marked and finished lines are scribed where applicable.
	1.3	Block-out material is applied as required.
2. Thermo-form	2.1	Thermo-forming material and apparatus is selected.
appliance or base	2.2	Heat is applied to material.
	2.3	Softened material is adapted.
	2.4	Material is allowed to cool.
	2.5	Adaptation is verified.
 Trim, shape and finish appliances or bases 	3.1	Thermo-formed blank is removed.
	3.2	Outline is trimmed and fitted to model.
	3.3	Outline is refined.
	3.4	Appliance or base is smoothened and finished.

RANGE OF VARIABLES

VARIABLE	RANGE		
1. Appliances	May include but are not limited to:		
	1.1 Mouthguard		
	1.2 Bleach trays		
	1.3 Occlussal splints		
	1.4 Baseplates		
	1.5 Temporary crown stents		
	1.6 Retaining devices		
	1.7 Custom impression trays		
2. Thermo-forming equipment used	May include but are not limited to:		
	2.1 Vacuum		
	2.2 Pressure		

1. Critical aspects of	Asse	ssment requires evidence that the candidate:
competency	1.1	Prepared model
	1.2	Thermo-formed appliance or base from blank
	1.3	Trimmed, shaped and finished appliance or bases
	1.4	Complied with infection control policies and procedures
	1.5	Followed OH&S policies
2. Underpinning	2.1	Relevant material science for carrying out procedures
knowledge	2.2	Oro-facial anatomy
	2.3	Thermoforming technology
	2.4	Polymer science
	2.5	Tooth morphology
	2.6	Principles of occlusion
	2.7	Industry Codes of Practice
	2.8	Relevant laws as appropriate
	2.9	Housekeeping and Maintenance Procedures
3. Underpinning skills	3.1 3.2 3.3 3.4 3.5	Manual dexterity Maintaining a healthy and safe working environment Performing orthodontic procedures and wrought wire fabrication techniques Maintaining personal hygiene Following correct measurements
	3.6	Planning and organizing work activities
4. Resource	The f	ollowing resources MUST be provided:
implications	4.1	A real or simulated dental laboratory environment
	4.2	Relevant documentation such as:
		4.2.1 industry codes of practice
		4.2.2 state legislation as appropriate
		4.2.3 housekeeping/maintenance procedures
	4.3	A qualified workplace assessor and/or a technical expert working in partnership with the assessor
5. Method of	Com	petency may be assessed through:
assessment	5.1	Demonstration with questioning
	5.2	Written Test/Examination
	5.3	Third Party Report
	5.4	Portfolio
6. Context of assessment	6.1	Competency may be assessed in the workplace or accredited assessment center.

UNIT OF COMPETENCY:	REPAIR AND MODIFY DENTURES AND APPLIANCES
UNIT CODE :	HCS322339
UNIT DESCRIPTION:	This unit covers the knowledge and skills required to reline, rebase, repair and modify removable prostheses.
	Demonstration of this unit of competency requires training and/or experience in infection-control procedures, constructing models, articulating models and transferring records, and constructing simple complete removable acrylic dentures and appliances.

	PERFORMANCE CRITERIA		
	Italicized terms are elaborated in the Range of Variables		
1. Prepare case	1.1 Standard precautions are applied when receiving, handling and		
	working on dentures and appliances		
	1.2 Dentures and appliances are decontaminated according to		
	infection control guidelines		
	1.3 Prescription are read and interpreted		
	1.4 Fractured components are examined for defects		
	1.5 Fractured components are realigned, positioned and secured in		
	their correct relationship		
2. Prepare model	2.1 Model is constructed in accordance with the dentist requirements		
	2.2 Articulation key is constructed if required		
3. Repair denture or	3.1 Denture surfaces are prepared and shaped to allow for bonding with		
appliance	the new material		
	3.2 Components are relocated		
	3.3 <i>Materials</i> and processing equipment are selected and <i>prepared</i>		
	3.4 Repair material is applied using the correct technique to acquire the		
	required shape and thickness		
	3.5 Material is processed in accordance with manufacturer's		
	instructions/specifications		
4. Modify denture or	4.1 Impressions are decontaminated according to infection control		
appliance, where	guidelines		
required	4.2 The model material is poured into the impression in accordance		
	with accepted techniques		
	4.3 Where necessary, case is articulated and records are transferred or		
	articulation key is constructed based on client requirement		
	4.4 Denture or appliance surfaces are prepared appropriately in		
	accordance with <i>modification</i> to be made		
	4.5 Denture is relined, re-based or modified in accordance with dentist		
	prescription		
5. Irim, shape and	5.1 Denture or appliance is trimmed to relevant anatomical outline or		
finish denture or	required extension of the base		
appliance	5.2 The tissue fitting surface is examined and any processing		
	anomalies and snarp surfaces are removed		
	5.3 Surfaces are refined and polished in order produce required contours		
	5.4 <i>Finished prosthesis are evaluated</i> in accordance with quality		
	standard		
	5.5 The appliance is decontaminated according to infection control		
	guidelines		
	5.6 The appliance is placed in a sealed container for dispatch		

RANGE OF VARIABLES

VARIABLE	RANGE
1. Standard precautions	 May include but are not limited to: 1.1 A dedicated clean area to receive incoming cases 1.2 Appropriate personal protection: 1.2.1 disposable gloves 1.2.2 apron 1.2.3 eye protection 1.2.4 mask where there is a risk of airborne transmission of infection 1.3 Decontamination of dentures and appliances 1.4 Disposal of all packaging materials in accordance with the waste regulations of DOH and environmental authorities (DENR) 1.5 Cleaning reusable containers with detergent followed by disinfection 1.6 Washing hands before leaving the work area 1.7 Excluding all food and drink from the work area
2. Decontamination of dentures and appliances	 May include but is not limited to: 2.1 Rinsing denture or appliance in clean running water 2.2 Cleaning in an ultrasonic cleaner 2.3 Cleaning in a mild detergent solution until all traces of blood and body fluids are removed, followed by rinsing
3. Preparation of materials	 May include but is not limited to: 3.1 Selection of materials appropriate to the removable prosthesis that is to be repaired 3.2 The correct quantities necessary for the repair
4. Modifications to a prothesis	 May include but is not limited to: 4.1 Adding new artificial teeth 4.2 Replacing existing artificial teeth 4.3 Modifying the denture base 4.4 Adding new metallic components 4.5 Modifying existing metallic components
5. Evaluation of the finished prosthesis	May include but is not limited to: 5.1 Checking the prosthesis for: 5.1.1 Compliance with the prescription 5.1.2 Quality and freedom from defects 5.1.3 Functional effectiveness of the design 5.1.4 Accurate fit to the cast

1. Critical aspects of competency	 Assessment requires evidence that the candidate: 1.1 Complied consistently with current infection control guidelines, DOH and PDA requirements as they relate to the dental technician's specific job role 1.2 Complied consistently with occupational health and safety policies and procedures as they relate to the dental technician's specific job role 1.3 Demonstrated consistent performance over the required range of workplace situations including: 1.3.1 consistently design and manufacture oral splints using a range of materials, for a range of jaw relations and malocclusions 1.3.2 consistently use a range of articulators 1.4 Trimmed, polished, finished and evaluated oral splints for suitability for insertion in the mouth
2. Underpinning knowledge and attitudes	 Knowledge on: 2.1 Infection control guidelines for the decontamination of dentures and appliances that have already been inserted into the mouth 2.2 Applied oral anatomy 2.2.1 structures of the oral cavity – hard and soft palate, lateral and posterior borders of the oral cavity, tongue and floor of the mouth 2.2.2 teeth – form and function 2.3 dentition – Arrangement of the teeth, naming and coding of teeth 2.3 Constructional faults that cause fractures of denture base including: 2.3.1 incorrect positioning of upper posterior teeth 2.3.2 absence of balanced occlusion 2.3.3 insufficient thickness of acrylic resin in the anterior palatal region of the denture 2.3.4 incorrect dough consistency when packing 2.3.5 inadequate polymerisation times and temperatures 2.3.6 rapid cooling after processing 2.4 Constructional faults that cause broken teeth 2.5 Methods for modifying, repairing and maintaining removable prostheses 2.6 Denture base materials

3. Underpinning skills	 3.1 Use safe work practices to minimize the risk of transmission of infection including: 3.1.1 consistently following the procedure for washing and drying hands 3.1.2 consistently putting into practice clean techniques 3.1.3 consistently using personal protective equipment 3.1.4 consistently limiting contamination 3.1.5 consistently maintaining clean receiving and work areas 3.2 Consistently follow occupational health and safety policies and procedures 3.3 Use literacy skills to read and follow directions, policies and procedures including: 3.3.1 occupational health and safety policies and procedures 3.3.2 infection control policies and procedures 3.3.4 laboratory policies and procedures 3.4 Select materials, techniques and equipment to reline, rebase, repair and modify removable prostheses 3.5 Consistently follow sequenced written instructions and
4. Resource implications	 The following resources MUST be provided: 4.1 A real or simulated dental laboratory environment 4.2 Dental materials 4.3 Dental tools and equipment 4.4 Dentist requirements/prescription
5. Method of assessment	 4.4 Dentist requirements/prescription Competency may be assessed through: 5.1 Demonstration with questioning 5.2 Observation with questioning 5.3 Oral questioning/Interview
6. Context of assessment	6.1 Competency may be assessed in the workplace or in a simulated workplace setting.

UNIT OF COMPETENCY	:	FABRICATE ORAL SPLINTS
UNIT CODE	:	HCS322332
UNIT DESCRIPTOR	:	This unit covers the knowledge, skills and attitude in fabricating oral splints.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables
1. Fabricate splint	1.1	Materials for the fabrication of splint are selected.
	1.2	Splint is fabricated according to work order requirements.
	1.3	Splint is processed according to manufacturer's recommendations.
2. Trim, shape and finish	2.1	Splint is trimmed according to material selection.
	2.2	Splint is shaped according to work order and rechecked on articulator.
	2.3	Splint is fitted back to master model.
	2.4	Splint is finished appropriately according to type of material selected.

RANGE OF VARIABLES

VARIABLE	RANGE		
1. Materials	May include but are not limited to:		
	1.1 Cast alloys		
	1.2 Acrylic resins (heat activated, chemically activated, thermo-		
	formed)		
	1.3 Visible light-cured composite resins		
2. Splint to be fabricated	May include but are not limited to:		
	2.1 Cast metal alloy cap splints		
	2.2 Acrylic cap splints		
	2.3 Gunning splints		
	2.4 Wrought wire retained splints		
	2.5 Occlusal splints (bruxing, neutral, anterior, repositioning, TMJ,		
	orthodontic)		

1. Critical aspects of	Assessment requires evidence that the candidate:		
competency	1.1 Fabricated splint		
	1.2 Trimmed, shaped and finished splint		
	1.3 Followed OH&S and DOH infection control guidelines		
	1.4 Identified dental anatomy and dental metallurgy		
	1.5 Used surveying equipment and vacuum forming procedures		
2. Underpinning	Knowledge on:		
knowledge	2.1 Articulation and occlusion		
	2.2 Relevant dental anatomy		
	2.3 Dental metallurgy 2.4 Polovant material science for carrying out procedures		
	2.5 Use of surveying equipment		
	2.6 OHS and material safety data sheets		
	2.7 Current DOH infection control guidelines		
	2.8 Processing of wax patterns in acrylic resin		
	2.9 Using of vacuum forming procedures		
	2.10 Dental Laboratory Materials, splint materials, jaw relations and		
	malocclusions of severe skeletal orthodontic type		
	2.11 Range of afficulators		
3. Underpinning skills	3.1 Manual dexterity		
	3.2 Surveying and blocking out undercuts		
	3.3 Selecting articulators		
	3.4 Using face-bow and centric records		
	3.5 Planning and organizing		
4. Resource	The following resources MUST be provided:		
implications	4.1 A real or simulated dental laboratory environment		
	4.2 Range of dental laboratory materials, splint materials, jaw		
	4.3 Range of articulators		
5. Method of	Competency may be assessed through:		
assessment	5.1 Demonstration with questioning		
	5.2 Written Test/Examination		
	5.3 Inird Party Report		
6. Context of	6.1 Competency may be assessed in the workplace or in a		
assessment	simulated workplace setting.		

UNIT OF COMPETENCY : FABRICATE ORTHODONTIC APPLIANCES

UNIT CODE : HCS322333

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitude in fabricating orthodontic appliances.

ELEMENT	PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables					
1. Select or fabricate and assemble	1.1	<i>Materials</i> are selected according to design and function specified by work order.				
components and materials	1.2	Individual <i>components</i> are selected and/or fabricated as appropriate to work order.				
2. Fabricate orthodontic	2.1	Components are secured to model by appropriate means.				
appliance	2.2	Materials are applied and processed according to manufacturer's instructions.				
3. Finish orthodontic appliance	3.1	Appliances are trimmed, shaped and finished.				

RANGE OF VARIABLES

VARIABLE	RANGE				
1. Components	May include but are not limited to:				
	1.1 Screws				
	1.2 Piston-screws				
	1.3 Springs an sheaths made in a variety of metals and polymers				
2. Materials	May include but are not limited to:				
	1 Polymers or metals and metal joining techniques				
3. Appliances	May include but are not limited to:				
	3.1 Functional appliances				
	3.2 Retainers of varying types				
	3.2.1 bite opening				
	3.2.2 retraction				
	3.2.4 retaining				
	3.2.5 incline plane				
	3.2.6 oral screen				

1. Critical aspects of	Assessment requires evidence that the candidate:			
competency	1.1	Selected or fabricated and assembled components and materials		
	1.2	Fabricated orthodontic appliance		
	1.3	Finished orthodontic appliances		
	1.4	Complied with infection control policies and procedures		
	1.5	Followed OH&S policies		
2. Underpinning	2.1	Dental metallurgy		
knowledge	2.2	Relevant material science for carrying out procedures		
	2.3	Relevant oral anatomy		
	2.4	Principles of Orthodontic Procedures		
	2.5	Occlusion		
	2.6	Wrought wire fabrication techniques		
	2.7	Industry Codes of Practice		
	2.8	Relevant laws as appropriate		
	2.9	Housekeeping and maintenance procedures		
3. Underpinning skills	3.1 3.2 3.3 3.4 3.5	Manual dexterity Maintaining a healthy and safe working environment Performing orthodontic procedures and wrought wire fabrication techniques Maintaining personal hygiene Following correct measurements		
	3.6	Planning and organizing work activities		
4. Resource	The f	ollowing resources MUST be provided:		
implications	4.1	A real or simulated dental laboratory environment		
	4.2	Relevant documentation such as:		
		4.2.1 industry codes of practice		
		4.2.2 state legislation as appropriate		
		4.2.3 housekeeping/maintenance procedures		
	4.3	A qualified workplace assessor and/or a technical expert working in partnership with the assessor		
5. Method of	Com	petency may be assessed through:		
assessment	5.1	Demonstration with questioning		
	5.2	Written Test/Examination		
	5.3	Third party Report		
	5.4	Portfolio		
6. Context of assessment	6.1	Competency may be assessed in the workplace or accredited assessment center.		

UNIT OF COMPETENCY : FABRICATE CAST METAL REMOVABLE PARTIAL DENTURE FRAMEWORK

UNIT CODE :	HCS322331
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UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes concerned with fabrication of alloy removable partial denture framework.

ELEMENT		PERFORMANCE CRITERIA Italicized terms are elaborated in the Range of Variables			
1. Prepare master	1.1	Work order is interpreted.			
model	1.2	<i>Alloy</i> is selected			
	1.3	Model is surveyed.			
	1.4	Designed is transferred to master model.			
	1.5	Undesirable undercuts are blocked out.			
	1.6	Clasp ledges are created.			
	1.7	Finished lines are scribed.			
	1.8	Tissue relief is applied.			
	1.9	Saddle relief is applied.			
2. Construct refractory model	2.1	Master model is duplicated in refractory material and sprue former is constructed, as necessary.			
	2.2	Refractory model surface is treated.			
3. Wax and invest	3.1	Design is transferred to refractory model.			
removable partial	3.2	Patterns and waxes are selected.			
	3.3	Patterns are waxed up and sprues attached.			
	3.4	Appropriate investment and technique are selected.			
	3.5	Investment material is prepared.			
	3.6	Wax, patterns and sprues are treated.			
	3.7	Investment setting time is allowed for.			
4. Burn out, cast and finish removable	4.1	Burn out and preheat cycles are selected for appropriate investment/alloy combination.			
partial denture	4.2	Investment mould is burnt out and preheated.			
	4.3	Alloy is melted and cast using appropriate equipment/ <i>technique</i> .			
	4.4	Cooling cycle is selected and applied.			
	4.5	Denture framework is devested.			
	4.6	Denture framework is trimmed, shaped, treated, finished and fitted to master model.			
	4.7	Framework is treated in accordance with DOH infection control guidelines.			

RANGE OF VARIABLES

VARIABLE	RANGE
1. Alloy	May include but are not limited to:
	1.1 Cobalt chromium based alloys
	1.2 Gold alloys
	1.3 Metal/ceramic alloys
2. Melting/casting	May include but are not limited to:
techniques	2.1 Flame melting
	2.2 Induction melting
	2.3 Resistance melting
	2.4 Centrifugal casting
	2.5 Gas pressure casting
	2.6 Vacuum casting

1. Critical aspect of	Assessment requires evidence that the candidate:
competency	1.1 Selected and prepared materials for fabrication of metal/cast
	metal allov
	1.2 Fabricated base and registration rim
	1.3 Prepared face how (if required)
	1.5 Frepared lace-bow (in required)
	1.4 Complied with infection control policies and procedures
	1.5 Followed OH&S policies
2 Underninning	2.1 Dental allov
z. Onderpinning	2.1 Dental alloy 2.2 Delevent meterial egippes for corrying out precedures
Knowledge	2.2 Relevant material science for carrying out procedures
	2.4 Melting and casting
	2.5 Heat treatment
	2.6 Surface finishing
	2.7 Industry Codes of Practice
	2.8 Relevant Laws as appropriate
	2.9 Housekeeping Maintenance
3. Underpinning skills	3.1 Manual dexterity
	3.2 Maintaining a healthy and safe working environment
	3.3 Melting and casting techniques
	3.4 Maintaining personal hygiene
	3.5 Planning and organizing work activities
4. Resource implication	The following resources MUST be provided:
	4.1 A real or simulated dental laboratory environment
	4.2 Relevant documentation such as:
	4.2.1 industry codes of practice
	1.2.1 state legislation as appropriate
	4.2.2 state registration as appropriate
	4.2.5 Housekeeping/maintenance
	4.5 Definition of the second s
	4.4 A qualified workplace assessor and/or a technical expert
	working in partnership with the assessor
5 Method of	Competency may be assessed through:
o. Method of	5.1 Demonstration with questioning
assessinent	5.2 Written Test/Exemination
	5.2 WITHEN TEST/EXAMINATION
	5.5 Inira Party Report
	5.4 Porttollo
6 Context of	6.1 Assessment may be conducted in the workplace or in a
assessment	simulated environment
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SECTION 3 TRAINING STANDARDS

This set of standards provides Technical and Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for **DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II.**

This includes information on curriculum design, training delivery, trainee entry requirements, tools, materials and equipment, training facilities and trainers qualification and national assessment and certification arrangements.

3.1 CURRICULUM DESIGN

Course Title: DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances)

NC Level: NC II

51

Nominal Training Hours: <u>1,446 Hours</u>

Course Description:

This course is designed to enhance the knowledge, skills and attitudes of **DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances)** in accordance with industry standards. It covers basic, common and core competencies in NC II.

UNIT OF COMPETENCY	LEARNING OUTCOMES	METHODOLOGY	ASSESSMENT APPROACH
1. Participate in workplace communication	 1.1 Obtain and convey workplace information. 1.2 Complete relevant work related documents. 1.3 Participate in workplace meeting and discussion. 	Group discussionInteraction	 Demonstration Observation Interviews/ Questioning
2. Work in a team environment	 2.1 Describe and identify team role and responsibility in a team. 2.2 Describe work as a team member. 	DiscussionInteraction	 Demonstration Observation Interviews/ Questioning
3. Practice career professionalism	 3.1 Integrate personal objectives with organizational goals. 3.2 Set and meet work priorities. 3.3 Maintain professional growth and development. 	 Group discussion Interaction 	 Demonstration Observation Interviews/ Questioning

BASIC COMPETENCIES 18 Hours

4.	Practice occupational health	1.1	Evaluate hazard and risks.	DiscussionPlant Tour	ObservationInterviews
	and safety	4.2	Control hazards and risks.	Symposium	
		4.3	Maintain occupational health and safety awareness.		

COMMON COMPETENCIES

	COMPETENCY	LEARNING OUTCOMES	METHODOLOGY	APPROACH					
1.	Maintain an effective relationship with clients and customers	 1.1 Maintain a clean and hygienic environment. 1.2 Meet client/custormer requirements 1.3 Build credibility with customers/clients 	LecturetteInteraction	 Observation and oral questioning Grid questioning Practical exercise 					
2.	Manage own performance	 2.1 Plan for completion of own workload. 2.2 Maintain quality performance. 2.3 Build credibility with customers/clients 	 Lecturette Brainstroming 	 Observation and oral questioning Grid questioning Practical exercise 					
3	Follow occupational health and safety policies in dental facilities	 3.1 Apply workplace procedures for hazard identification and risk control 3.2 Utilize and implement strategies as directed to prevent infection in the workplace 3.3 Work in a safe manner 	 Group Discussion Interaction 	 Demonstration Observation Interviews/ Questioning 					
4	Maintain infection control in dental practice	 4.1 Monitor and maintain the cleanliness of the dental laboratory rooms 4.2 Clean and maintain dental instruments and equipment 4.3 Maintain hygiene and personal protection 4.4 Dispose of dental laboratory waste safely 4.5 Disinfect and clean impressions 	 Group Discussion Interaction 	 Demonstration Observation Interviews/ Questioning 					

5	Operate a personal computer	5.1	Start and shut down the computer	•	Group Discussion	•	Demonstration Observation
		5.2	Arrange and customize desktop display/window setting	•	Interaction Lecture	•	Interviews/ Questioning Written Exam
		5.3	Work with files and folders (or directories)				
		5.4	Work with user application programs				
		5.5	Print information				

CORE COMPETENCIES

1,382 Hours

	UNIT OF COMPETENCY	LEARNING OUTCOME	METHODOLOGY	ASSESSMENT APPROACH
1	Arrange artificial teeth for complete dentures	1.1 Prepare case for setting of teeth1.2 Arrange artificial teeth1.3 Wax up denture for try-in	 Demonstration/ Practical Hands- on Exercises Competency- Based Learning Materials Method 	Written examinationObservationQuestioning
2	Set-up and wax removable partial dentures	 2.1 Design acrylic removable partial denture 2.2 Select and prepare materials 2.3 Arrange artificial teeth 2.4 Fabricate retainer units 	 Demonstration/ Practical Hands- on Exercises Competency- Based Learning Materials Method 	Written examinationObservationQuestioning
3	Wax, process and finish acrylic dentures and appliances	 3.1 Wax case for finish consistent with work order 3.2 Select and prepare materials and processing 3.3 Process denture or appliance 3.4 Grind dentures and appliances selectively 	 Demonstration/ Practical Hands- on Exercises Competency- Based Learning Materials Method 	 Written examination Observation Questioning
4	Fabricate thermo- formed bases and appliances	 4.1 Prepare model 4.2 Thermo-form appliance or base 4.3 Trim, shape and finish 	Lecture/ DemonstrationOJT	 Written Examination Demonstration Observation

UNIT OF COMPETENCY	LEARNING OUTCOME	METHODOLOGY	ASSESSMENT APPROACH
5. Repair and modify dentures and appliances	 5.1 Prepare case 5.2 Prepare model 5.3 Repair denture or appliance 5.4 Modify denture or appliance, where required 5.5 Trim, shape and finish denture or appliance 	 Lecture/ Demonstration OJT 	 Written Examination Demonstration Observation
6 Fabricate oral splints	6.1 Fabricate splint6.2 Trim, shape and finish	 Lecture/ Demonstration OJT 	 Written Examination Demonstration Observation
7 Fabricate orthodontic appliances	 7.1 Select or fabricate and assemble components and materials 7.2 Fabricate orthodontic appliance 7.3 Finish orthodontic appliance 	 Lecture/ Demonstration OJT 	 Written Examination Demonstration Observation
8 Fabricate cast metal removable partial denture framework	 8.1 Prepare master model 8.2 Fabricate refractory model 8.3 Wax and invest removable partial denture framework 8.4 Burn out, cast and finish removable partial denture framework 	 Lecture Discussion Demo 	 Written examination Interview

3.2 TRAINING DELIVERY

The delivery of training should adhere to the design of the curriculum. Delivery should be guided by the 10 basic principles of competency-based TVET.

- The training is based on curriculum developed from the competency standards;
- Learning is modular in its structure;
- Training delivery is individualized and self-paced;
- Training is based on work that must be performed;
- Training materials are directly related to the competency standards and the curriculum modules;
- Assessment is based in the collection of evidence of the performance of work to the industry required standard;
- Training is based both on and off-the-job components;
- Allows for recognition of prior learning (RPL) or current competencies;
- Training allows for multiple entry and exit; and
- Approved training programs are nationally accredited.

The competency – based TVET system recognizes various types of delivery modes, both on and off-the-job as long as the learning is driven by the competency standards specified by the industry. The following training modalities may be adopted when designing training programs:

- The dualized mode of training delivery is preferred and recommended. Thus programs would contain both in-school and in – industry training or fieldwork components. Details can be referred to the Dual Training System (DTS) Implementing Rules and Regulations.
- Modular/self-paced learning is a competency-based training modality wherein the trainee is allowed to progress at his own pace. The trainer facilitates the training delivery
- Peer teaching/mentoring is a training modality wherein fast learners are given the opportunity to assist the slow learners
- Supervised industry training or on-the-job training is an approach in training designed to enhance the knowledge an skills of the trainee through actual experience in the workplace to acquire specific competencies prescribed in the training regulations.
- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructor are not in the same place. Distance learning may employ correspondence study, or audio, video or computer technologies.
- Project-Based Instruction is an authentic instructional model or strategy in which students plan, implement and evaluate projects that have real world applicants.

3.3 TRAINEE ENTRY REQUIREMENTS:

Trainees or students wishing to gain entry into these qualifications should possess the following requirements:

- Must be 18 years old
- > Must be a holder of a Dental Laboratory Technology Services NCI or its equivalent
- > Must be physically fit and mentally fit (specifically on eye and hand coordination)
- > Must be able to communicate either oral or written
- > Must be at least a high school graduate or its equivalent

This list does not include specific institutional requirements such as educational attainment, appropriate work experience, and others that may be required of the trainees by the school or training center delivering this TVET program.

3.4 TOOLS, MATERIALS AND EQUIPMENT:

DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II

Recommended list of tools, equipment and materials for the training of 25 trainees for **DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II** are as follows:

	TOOLS		EQUIPMENT	MATERIALS		
Qty.	Description	Qty.	Description	Qty.	Description	
25 sets	Base Former (upper, lower quadrant)	25 pcs.	Articulator, Non- Adjustable	25 pcs.	Abrasive (assorted	
		pcs. 1 pc.	Adjustable Articulator, Fully Adjustable			
25 pcs.	Plaster Knife	1 pc.	Steamer	25 pcs.	Masks	
25 pcs.	Caliper	25 pcs.	Bunsen Burner	25 pcs.	Laboratory Gown	
25 sets	Waxing Instrument Set	1 pc.	Cleaning Unit	1 box	Gloves	
5 pcs.	Chisel	1 pc.	Die Trimming Machine	1 kilo	Acrylic Resin	
25 pcs.	Duplicating Tray	25 pcs.	Micro Motor		Polishing Paste and Compound (assorted)	
25 pcs.	Mixing Bowl	1 pc.	Vacuum Former Machine	1 gal.	Disinfecting Solution	
25 pcs.	Plaster Spatula	2 pcs.	Vibrator		Dental Lab Waxes (assorted)	
25 pcs.	Impression Tray or Stock Tray	2 pcs.	Lathe Machine	25 pcs.	Adhesives	
100 pcs.	Mandrel	2 pcs.	Pressure Pot	25 kilos eac h	Gypsum (assorted)	

	TOOLS		EQUIPMENT	MATERIALS		
Qty.	Description	Qty.	Description	Qty.	Description	
25 pcs.	Plaster Cutters	1 pc.	Vacuum Mixer	25 pcs. each	Duplicating Materials (assorted)	
25 pcs.	Alcohol Torch	2 pcs.	Cast Trimmer	25 btls.	Alcohol	
25 pcs.	Guide or Template	1 unit	Weighing Scale	2 tanks	Laboratory Gases	
25 pcs.	Denture/Bantam Flask	1 unit	Injection Moulding Machine/Flexibles and accessories	25 sets	Artificial Teeth	
12 pcs.	Ortho pliers (assorted)	1 unit	Surveyor	25 pcs	Thermoplastic materials	
10pcs.	Flask carrier	5 unit	High speed grinder	25 pcs	Light cure materials	
25 pcs.	Duplicating Flask	1 unit	Sandblaster	1kl.	Nickel chrome/Chrome cobalt alloy	
		1 unit	Hydraulic/Bench Presser	5kls.	Aluminum oxide	
		1 unit	Boil-out unit	25 kls.	Investment materials	
		1 unit	Casting machine/Burn-out oven and accessories	2 sets	Orthodontic wire	
		1 unit	Light curing machine	1 gal	Separating medium	
		1 unit	Electro plater	1 btl.	Debubblelizer	
				1 gal	Electro plating solution	

3.5 TRAINING FACILITIES

DENTAL LABORATORY TECHNOLOGY SERVICES (Removable Dentures/Appliances) NC II

The Dental Laboratory Technology Services (Removable Dentures/Appliances) Learning Facility must be of concrete structure. Based on class size of **25** students / trainees the space requirements for the teaching / learning and curriculum areas are as follows.

TEACHING / LEARNING AREAS	SIZE IN METERS	AREA IN S. METERS	TOTAL AREA IN SQ. METERS
Student/Trainee Performance Space (S/TPS)	5 X 4	20	20
Learning Resource Center (LRC)	3 X 5	15	15
Circulation Area		21	21
Separate Restrooms for Male and Female Trainees/Students	2 X 5	10	10
Total Workshop Area			75 sq. m.

3.6 TRAINER QUALIFICATION (TQ II)

- > Must have completed Trainer's Training Methodology Course (TTMC) or its equivalent
- Must be a holder of a Dental Laboratory Technology Services (Removable Dentures/Appliances) NC II or its equivalent
- > Must be able to communicate effectively both orally and in written form
- > Must be physically, emotionally, psychologically and mentally fit
- > Must have a minimum of five (5) years experience as a dental technician

3.7 INSTITUTIONAL ASSESSMENT

Institutional Assessment is undertaken by trainees to determine their achievement of units of competency. A certificate of achievement is issued for each unit of competency.

SECTION 4 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

- 4.1 To attain the National Qualification of Dental Laboratory Technology Services (Removable Dentures/Appliances) NC II, the candidate must demonstrate competence in all the units of competency listed in Section 1. Successful candidates shall be awarded a National Certificate signed by the TESDA Director General.
- 4.2 The qualification of Dental Laboratory Technology Services (Removable Dentures/Appliances) NC II may be attained through
 - 4.2.1 Accumulation of Certificates of Competency (COCs) in the following areas -
 - Perform complete denture setting and festooning
 - Arrange artificial teeth for complete dentures
 - Set-up and wax removable partial dentures
 - Process complete denture
 - Wax, process and finish acrylic dentures and appliances
 - Fabricate thermo formed bases and appliances
 - Repair and modify dentures and appliances
 - Perform fabrication of oral splints
 - Fabricate oral splints
 - Fabricate orthodontic appliances
 - Fabricate cast metal removable partial denture framework
 - 4.2.2 Demonstration of competence through project-type assessment covering all required units of qualification
- 4.3 Assessment shall focus on the core units of competency. The basic and common units shall be integrated or assessed concurrently with the core units.
- 4.4 The following are qualified to apply for assessment and certification:
 - 4.4.1 Graduates of formal, non-formal and informal including enterprise-based training programs.
 - 4.4.2 Experienced Workers (wage employed or self employed)
- 4.5 The guidelines on assessment and certification are discussed in detail in the "Procedures Manual on Assessment and Certification" and "Guidelines on the Implementation of the Philippine TVET Qualification and Certification System (PTQCS)".

COMPETENCY MAP – HEALTH CARE SECTOR (DENTAL LABORATORYTECHNOLOGY SERVICES NC II) BASIC COMPETENCIES

	Receive and respond to workplace communication	Work with others	Demonstrate work values	Practice basic housekeeping procedures	Participate in workplace communication	Work in team environment	Practice career professionalism
	Practice occupational health and safety procedures	Lead workplace communication	Lead small team	Develop and practice negotiation skills	Solve problems related to work activities	Use mathematical concepts and techniques	Use relevant technologies
	Utilize specialized communication skills	Develop teams and individuals	Apply problem solving techniques in the workplace	Collect, analyze and organize information	Plan and organize work	Promote environmental protection	
CON	IMON COMPETENCIES						
	Implement and monitor infection control policies and procedures	Respond effectively to difficult/challenging behavior	Apply basic first aid	Maintain high standard of patient services	Process reusable instruments and equipment in health work	Prepare for and assist with oral health care procedures	Assist with administration in dental practice
	Maintain an effective relationship with custormers and clients	Manage own performance	Follow occupational health and safety policies in dental practice	Maintain infection control in dental practice			
COR	E COMPETENCIES						
	Provide care and support to infants and toddlers	Provide care and support to children	Foster social, intellectual, creative and emotional development of children	Foster the physical development of children	Provide care and support to elderly	Provide care and support to people with special needs	Maintain a healthy and safe environment
	Respond to emergency	Clean living room, dining room, bedrooms, toilet and bathroom	Wash and iron clothes, linen and fabric	Prepare hot and cold meals	Prepare and maintain beds	Collect and maintain linen stocks at end users location	Assist in patient mobility
	Assist in transporting patients	Assist in bio-psychosocial support care of patients	Handle waste in a health care environment	Install biomedical equipment	Perform corrective maintenance on biomedical equipment	Perform preventive maintenance on biomedical equipment	Repair biomedical equipment
	Perform basic life support	Maintain life support equipment and resources	Implement safe access and extrication procedures in an emergency	Manage request for ambulance service	Allocate ambulance service resources	Coordinate emergency resources	Deliver basic ambulance communication skills
	Supervise on-road operations	Manage the scene of a special event	Manage routine scene	Deliver pre-hospital patient care	Manage ambulance operations	Transport emergency patients	Transport non- emergency patients

TR Dental Laboratory Technology Services (Removable Dentures/Appliances) NC II

Amended April 8, 2010

Drive vehicles under operational conditions Work within a holistic therapeutic massage framework		Perform therapeutic massage assessment	Plan the therapeutic massage treatment	Implement therapeutic massage treatment	Perform remedial therapeutic massage treatment	Work within a community development framework
Prepare for work in the community service industry	Support community resources	Provide primary/residential care	Support community participation	Recruit and coordinate volunteers	Respond holistically to client issues	Develop and provide health education program in the community
Implement health promotion and community interventions	Fabricate models	Fabricate custom impression trays	Fabricate registration bite rims	Articulate models and transfer records	Fabricate mouthguard	Arrange artificial teeth for complete dentures
Set up and wax removable partial dentures	Wax, process and finish acrylic dentures and appliances	Fabricate thermo formed bases and appliances	Repair and modify dentures and appliances	Fabricate oral splints	Fabricate orthodontic appliances	Fabricate cast metal removable partial denture framework

DEFINITION OF TERMS

ABUTMENT	-	Tooth or teeth that support a fixed or removable bridge
ANTERIOR TEETH	-	the six upper or six lower front teeth (canines, laterals & central incisors)
APEX	-	the tip of the root of a tooth
ARCH	-	describes the alignment of the upper or lower teeth
ARTICULATE	-	to unite by forming a joint or joints
ARTICULATOR	-	a mechanical device representing the temporomandibular joints and jaw members to which casts of the mouth
BASE	-	cement placed under a dental restoration to insulate the pulp (nerve chamber)
BITE	-	relationship of the upper and lower teeth on closure (occlusion)
BONDING	-	adhesive dental restoration technique; a tooth-colored composite resin to repair and/or change the color or shape of a tooth
BRACES	-	devices used by orthodontists to gradually reposition teeth to a more favorable alignment
BRIDGE	-	stationary dental prosthesis (appliance) fixed to teeth adjacent to a space; replaces one or more missing teeth, cemented or bonded to supporting teeth or implants adjacent to the space
	-	fixed bridge that attaches to adjacent teeth only on one end
CAP	-	common term for dental crown
CLASP	-	device that retains a removable partial denture to stationary teeth; can be metal or acrylic (matches teeth and gums)
CROSS BITE	-	reverse biting relationship of upper and lower teeth; aka "under bite," as in Class III malocclusuion (prognathic jaw)
CROWN		(1) the portion of a tooth above the gum line;
		(2) dental restoration covering all or most of the natural tooth
CUSTOM IMPRESION TRAY	-	an impression tray made from a preliminary impression used to make the final impression
DENTAL WAXES	-	wax compounds used in dentistry are mixtures of individual waxes of materials or synthetic origin. As with all other dental materials, each component n the mixture is selected to given specific properties best suited for the procedure being performed
DENTURE	-	removable (partial or complete) set of artificial teeth

DIASTEMA	-	open space between teeth
DISTAL	-	farthest from any point of reference
DUPLICATE	-	identically copied from an original
FABRICATE	-	to make; create; to construct by combining or assembling
FACE-BOW FORK	-	a device used to attach the face-bow to an occlusion rim for a face- bow transfer
FACING	-	tooth colored overlay on the visible portion of a crown; may be acrylic, composite or porcelain
FILLING	-	restoration of lost tooth structure with metal, porcelain or resin materials
FULL DENTURE	-	removable dental prosthesis (appliance) replacing all upper or lower teeth
FULL MOUTH RECONSTRUCTION	-	extensive restorations of natural teeth with crowns and or fixed bridges to manage restorative and bite problems.
GYPSUM	-	is the common name for calcium sulfate dehydrate. Gypsum products are more frequently used on laboratory procedures than any other single group of compounds. Controlled variations in the manufacturing of gypsum products yield a group of dental materials including plaster, artificial stone (hydrosol), disc stone, casting investment and soldering investment
IMPRESSION	-	mold made of the teeth and soft tissues
INLAY	-	indirect – filling made by a dental laboratory that is cemented or bonded into place,
		direct – placement of dental composite resin, or porcelain restoration at chairside
INTEROCCLUSAL	-	space between upper and lower teeth
JACKET	-	crown for a front tooth, usually made of porcelain
LAMINATE	-	thin plastic or porcelain veneer produced in a dental laboratory and then bonded to a tooth
MALOCCLUSION	-	"bad bite" or misalignment of the upper and lower teeth
MARGIN	-	interface between a restoration and tooth structure
MARYLAND BRIDGE	-	a bridge that is bonded to the back of the adjacent teeth; requires minimum tooth reduction
MODEL	-	a material used extensively for making impressions. It contains shellac, talc, glycerin, wax, tallow and palm oil
OVERBITE	-	vertical overlap of the front teeth; deep bite
PARTIAL DENTURE	-	removable dental prosthesis (appliance) replacing one or more natural teeth
PONTIC	-	replacement tooth mounted on a fixed or removal appliance
PORCELAIN CROWN	-	all porcelain restoration covering the coronal portion of tooth (above the gum line)

restoration with metal coping (for strength) covered by porcelain (for appearance)
tooth-colored restoration made of porcelain, cemented or bonded in place
a thin layer of porcelain, fabricated by a laboratory) bonded to a natural tooth to replace lost tooth structure, close spaces, straighten teeth or change color and/or shape
an artificial appliance for the replacement for a body part, tooth or teeth
a soldering investment is similar in composition to a casting investment that has a
connection of two or more teeth so they function as a stronger single structure

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