Dental Laboratory Mechanic [DLM]

(Short Term Competency Based Curriculum)

2010



Council for Technical Education and Vocational Training (CTEVT) CURRICULUM DEVELOPMENT DIVISION SANOTHIMI, BHAKTAPUR

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Introduction

This curriculum for "Dental Laboratory Mechanic" has been developed with a purpose of preparing technical workforce in the field of dental laboratory mechanics able to get employment in the country. The technical skills incorporated in this curriculum come from the experts who have already worked in field of dental laboratory mechanics. Its contents are organized in the form of modules. So it is a tailor made curriculum to be implemented in a modular form.

It is a competency based curriculum too. It is also designed to produce lower level technical workforce in the field of dental laboratory mechanics equipped with skills, knowledge and attitudes related to the technology of dental laboratory mechanics in order to meet the demand of such workforce in the country so as to contribute in the national streamline of poverty reduction in Nepal.

Aims

The main aim of this curricular program is to produce skilled workforce in the field of dental laboratory mechanics by providing training to the citizen of the country and link them to employment opportunities in the country. The aims of this curriculum are:

- To produce lower level technical workforce in the field of dental laboratory mechanics
- To produce such technical workforce who will be able to provide service through the application of the skills and knowledge of the technology dental laboratory mechanics.

Objectives

After the completion of this training program, the trainees will be able:

- To be familiar with dental Materials/Equipment/Instruments
- To maintain Laboratory Safety
- To fabricate Removable Partial Denture (RPD)
- To fabricate Complete Denture (CD)
- To fabricate Ortho Plate
- To prepare Acrylic Temporary Crown / Bridge
- To prepare Bite Rest (Mouth Guard)
- To perform Repair /Maintenance
- To communicate with other
- To develop Professionalism

Description

This curriculum provides skills and knowledge necessary for "Dental Laboratory Mechanic". There will be both demonstration by trainers/instructors and opportunity by trainees to carry out the skills/tasks necessary for this level of technical workforce. Trainees will practice and learn skills by using typical tools, materials and equipment necessary for this curricular program. On successful completion of this training, the trainees will be able to carry out skills related to handle dental Materials/Equipment/Instruments, maintain Laboratory Safety, fabricate Removable Partial Denture (RPD), fabricate Complete Denture (CD), fabricate Ortho Plate, prepare Acrylic Temporary Crown / Bridge, prepare Bite Rest (Mouth Guard), perform Repair /Maintenance, and communicate with other.

	Job: Dental Lab. Mechanic (DLM)								
	Module/sub modules	Nature	Th.	Pr.	Tot.	Th.	Pr.	Tot.	
1. N	Iaterials, equipment, instruments and	T + P	18	70	88	12	48	60	
S	afety								
	1. Materials/Equipment/Instruments	T + P	10	38	48				6
	2. Laboratory safety	T + P	8	32	40				5
2. F	abrication	T + P	28	116	144	20	80	100	0
	1. Removable Partial Denture (RPD)	T + P	10	38	48				6
	2. Complete Denture (CD)	T + P	8	32	40				5
	3. Ortho Plate	T + P	10	46	56				7
3. B	Bridge and mouth guard	T + P	16	72	88	12	48	60	0
	1. Acrylic Temporary Crown / Bridge	T + P	8	32	40				5
	2. Bite Rest (Mouth Guard)	T + P	6	26	32				4
4. R	Repair and Maintenance	T + P	2	14	16	6	24	30	4
	Sub-total:		62	258	320	50	200	250	42
5. C	Common module	T + P	14	56	70	10	40	50	
	1. Applied math	T + P	4	16	20				
	2. Occupational health and safety	T + P	2	8	10				
	3. First aid	T + P	1	4	5				
	4. HIV/AIDS	T + P	1	4	5				
	5. Communication	T + P	2	8	10				
	6. Small enterprise development	T + P	4	16	20				
	Total:		76	314	390	60	240	300	

Course structure

Duration

The total duration of this curricular program will be of three months (390 hours) [320 hours of specific modules plus 70 hours of Common module.

Target group

The target group for this training will be all the interested individuals of the country with the minimum qualification of class five passed or equivalent

Group size

The group size of this training program will be not more than 30

Target location

The target location of this training program will be all over Nepal.

Medium of Instruction

The medium of instruction for this training program will be Nepali or English or both.

Pattern of attendance

The trainees should have 80% attendance in theory classes and 90% in Practical (Performance) to be eligible for internal assessment and final examinations.

Focus of the program

This is a competency based curriculum. This curriculum emphasizes on competent performance of the task specified in it. Not less than 80% time is allotted to the competencies and not more than 20% to the related technical knowledge. So, the main focus will be on the performance of the specified competencies/tasks /skills included in this curriculum.

Entry criteria

Individuals who meet the following criteria will be allowed to enter in this curricular program:

- Minimum of grade ten pass or equivalent
- Physically and mentally fit
- Minimum of 18 years of age
- Should pass entrance examination
- Preference will be given to female, Dalit, Janjati, and Conflict affected people

Follow up suggestion

This is not a training program only for training sake. The ultimate success of this program will rest on the proficiency of the graduates of this training program in providing services in the community either by wage employment or by self-employment.

In other to assess the success of this program and collect feedbacks/inputs for the revision of the program, a schedule of follow up is suggested as follows:-

- First follow up: Six months after the completion of the training program.
- Second follow up: Six months after the completion of the first follow up.
- Follow up cycle: In a cycle of one year after the completion of second follow up for five years.

Certificate requirement:

The related training institute will provide the certificate of "Dental Laboratory Mechanic" to those individuals who successfully complete all the tasks with their related technical knowledge specified in this curriculum.

Grading System

The trainees will be graded as follows based on the marks in percentage secured by them in tests/ evaluations.

- Distinction: Passed with 80% or above
- First Division: Passed with 75% or above
- Second Division: Passed with 65% or above
- Third Division: Passed with 60% or above

Student Evaluation Details:

- Continuous evaluation of the trainees' performance is to be done by the related instructor/trainer to ensure the proficiency over each competency.
- Related technical knowledge learnt by the trainees will be evaluated through written or oral tests as per the nature of the content
- Trainees must secure minimum marks of 60% in an average of both theory and practical evaluations.

Trainers' Qualification:

- Bachelor Of Dental Surgery (BDS)
- Senior Dental Lab Technician.

Trainer – Trainees Ratio:

- In theory classes 1(trainer): 20 (trainees)
- In practical classes (in workshop and laboratory) 1(trainer): 10 (trainees)

Suggestion for instruction

Demonstrate task performance

- Demonstrate task performance in normal speed
- Demonstrate slowly with verbal description of each and every steps in the sequence of activity flow of the task performance using question and answer techniques
- Repeat the above step for the clarification on trainees demand if necessary.
- Perform fast demonstration of the task performance.

Provide trainees the opportunity to practice the task performance demonstrated.

- Provide trainees to have guided practice:- create environment for practicing the demonstrated task performance and guide the trainees in each and every step of task performance
- Provide trainees the opportunity to repeat & re-repeat as per the need to be proficient on the given task performance
- Switch to another task demonstration if and only if the trainees developed proficiency in the given task performance

Evaluation performance of the trainees/ student

- Perform task analysis
- Develop a detail task performance check list

• Perform continuous performance evaluation of the trainees / students by applying the performance check list.

List of modules and sub modules

Module: 1: Materials, equipment, instruments and safety Sub module: 1: Materials/Equipment/Instruments Sub module: 2: Laboratory Safety **Module: 2: Fabrication** Sub module: 1: Removable Partial Denture (RPD) Sub module: 2: Complete Denture (CD) Sub module: 3: Ortho Plate Module: 3: Bridge and mouth guard Sub module: 1: Acrylic Temporary Crown / Bridge Sub module: 2: Bite Rest (Mouth Guard) **Module: 4: Repair and Maintenance** Module: 5: Common module Sub module: 1: Applied math Sub module: 2: Occupational health and safety Sub module: 3: First aid Sub module: 4: HIV/AIDS Sub module: 5: Communication Sub module: 6: Small enterprise development

Details of curriculum

	Module: 1: Materials, equipment, instruments and safety					
	Description: It includes knowledge	and skills related to dental materials	, equip	oment,		
	instruments and laboratory safety.					
	Objectives:					
	• To be familiar with dental ma	terials/equipment/instruments				
	To maintain laboratory safety					
	Sub modules:					
	1: Materials/Equipment/Instrume	nts				
	2: Laboratory Safety					
	Sub module: 1: Materials/E	quipment/Instruments				
	Objective:					
	• To be familiar with dental M	aterials/Equipment/Instruments				
	Task: Each task includes task stateme	ent, related technical knowledge neces	sary to	know		
	for carrying out the task in a profession	onal way and the time allocation for bo	oth the	theory		
	and practical aspects of the task.					
	10 hrs.	(Th.) + 38 hrs. $(Pr.) = 48$ hrs. $(Hrs.)$	Т	ime (H	rs.)	
SN	Tasks	Related technical knowledge	Th.	Pr.	Tot.	
1.	Be familiar with Gypsum products	Gypsum products and its types:	1	6	7	
	and its types	• Concept of Gypsum products				
		• Types of Gypsum products				
		• Identification of Gypsum				
		products				
		• Uses/application of Gypsum				
		products				
		• Related precautions to be				
		taken				
		• Related records to be taken				
2.	Be familiar with Wax and its types	Wax and its types used in	1	6	7	
	used in dentistry	dentistry:				
		• Concept of Wax				
		• Types of Wax used in				
		dentistry				
		• Identification of Wax to be				
		used in dentistry				
		• Uses/application of Wax in				
		dentistry				
		• Related precautions to be				

3.	Be familiar with Resins and its types used in dentistry	 Related records to be taken <u>Resins and its types used in</u> <u>dentistry</u>: Concept of Resins Types of Resins to be used 	1	6	7
3.	Be familiar with Resins and its types used in dentistry	 <u>Resins and its types used in</u> <u>dentistry:</u> Concept of Resins Types of Resins to be used 	1	6	7
		 in dentistry Identification of Resins to be used in dentistry Uses/application of Resins in dentistry Handling and care Related precautions to be taken Related records to be taken 			
4.	Be familiar with impression material (Alginate, compound)	 Impression material (Alginate, compound): Concept of impression material (Alginate, compound) Types: Alginate/compound Identification of impression material (Alginate, compound) Uses/application of impression material (Alginate, compound) Uses/application of impression material (Alginate, compound) Handling and care Related precautions to be taken 	2	6	8
5.	Be familiar with instruments and equipment used in Laboratory	Instruments and equipment used in Laboratory: Instruments: • Concept of instruments • Types of instruments • Identification various types of instruments • Uses/application of the instruments • Handling and care of the instruments • Related precautions to be	4	8	12

6.	Minimize wastage of materials	 taken Related records to be taken <i>Equipment</i>: Concept of equipment Types of equipment Identification of various types of equipment Uses/application of the various types of equipment Handling and care of the various types of equipment Related precautions to be taken Related records to be taken Minimizing wastage of materials: Concept of wastage of materials happens Principle and procedures for minimizing wastage of materials Related precautions to be taken 	1	6	7
	Sub-total:		10	38	48
	Sub module:	2: Laboratory Safety			
	Description: It includes knowledge a	and skills related to dental laboratory	safety		
	Objective:To maintain Laboratory Safet	у	J		
	Task : Each task includes task statemet for carrying out the task in a professio and practical aspects of the task.	ent, related technical knowledge neces nal way and the time allocation for bo	ssary to oth the	know theory	
	8 hrs.	(Th.) + 32 hrs. $(Pr.) = 40$ hrs. $(Hrs.)$	Т	ime (H	rs.)
SN	Tasks	Related technical knowledge	Th.	Pr.	Tot.
1.	Control cross infection in Laboratory	 <u>Control of cross infection in</u> <u>Laboratory</u>: Concept of cross infection in laboratory Need for controlling cross infection in laboratory Principles and procedures for 	1.6	6.4	8

		 controlling cross infection in laboratory Controlling cross infection in laboratory Related precautions to be taken Related records to be taken 	
2.	Adopt Universal Precaution in Laboratory	Universal Precaution in Laboratory:1.66.48Laboratory:Concept of Universal Precautions6.48PrecautionsNeed for adopting Universal Precaution in laboratory1.66.48Principles and procedures for adopting Universal Precaution in laboratory1.66.48Principles and procedures for adopting Universal Precaution in laboratory1.66.48Precaution in laboratory888Precaution in laboratory988Precaution in laboratory988Precaution in laboratory998Precaution in laboratory999Precaution in laboratory999Precautio	8
3.	Minimize hazards from dental materials	Minimizing hazards from dental materials:1.66.48• Concept of hazards from dental materials• Need for minimizing hazards from dental materials• Principles and procedures 	8
4.	Disinfect the dental cast	Disinfecting the dental cast:1.66.4• Concept of dental cast•• Need for disinfecting the dental cast•• Principles and procedures for disinfecting the dental cast•• Disinfecting the dental cast•• Related precautions to be•	8

		taken					
_	2	Related records to be taken		<i></i>			
5.	Dispose laboratory waste	Disposing laboratory waste:	1.6	6.4	8		
		Concept of laboratory waste					
		Ineed for disposing laboratory years					
		Dringinglas and proceedures for					
		Principles and procedures for disposing laboratory waste					
		Disposing laboratory waste					
		 Disposing faboratory waste Palated precoutions to be 					
		• Related precautions to be taken					
		 Belated records to be taken 					
	Sub-total:		8	32	40		
	Module	e: 2: Fabrication	U	52	10		
	Description: It includes knowledge	e and skills related to fabricating	Remo	ovable			
	Partial Denture (RPD), Complete De	nture (CD) and Ortho Plate.	,				
	Objectives:						
	• To fabricate Removable Partial Denture (RPD)						
	• To fabricate Complete Denture (CD)						
	To fabricate Ortho Plate						
	Sub modules:						
	1: Removable Partial Denture (RPD)						
	2: Complete Denture (CD)						
	3: Ortho Plate						
	Sub module: 1: Removable Partial Denture (RPD)						
	Description: It includes knowledge and skills related to fabricating Removable						
	Partial Denture (RPD).						
	• To fobricate Ramovable Parti	al Dantura (PPD)					
	To fabricate Kelliovable Faith	an Denture (RFD)	sarv to	know			
	for carrying out the task in a professio	and way and the time allocation for be	oth the	theory			
	and practical aspects of the task.		,	uncory			
	10 hrs.	(Th.) + 38 hrs. $(Pr.) = 48$ hrs. $(Hrs.)$	Т	'ime (H	rs.)		
SN	Tasks	Related technical knowledge	Th.	Pr.	Tot.		
1.	Manipulate impression	Manipulating impression	1	4	5		
	material(Alginate)	material(Alginate):					
		• Concept, need and					
		importance of manipulating					
		impression					
		material(Alginate)					
		• Uses and application of					
		manipulating impression	1				

		 material(Alginate) Principles and procedures for manipulating impression material(Alginate) Manipulating impression material(Alginate) Related precautions to be taken Related records to be taken 	
2.	Pour dental cast (Plaster/stone)	Pouring dental cast144(Plaster/stone):•Concept, need and importance of pouring dental cast (Plaster/stone•••Uses and application of pouring dental cast (Plaster/stone••••Principles and procedures for pouring dental cast (Plaster/stone)•••Principles and procedures for pouring dental cast (Plaster/stone)•••Pouring dental cast (Plaster/stone)•••Related precautions to be taken••	5
3.	Prepare Wax Plate	Preparing Wax Plate14• Concept, need and importance of preparation of Wax Plate14• Uses and application of preparation of Wax Plate14• Principles and procedures for preparation of Wax Plate14• Preparing Wax Plate14• Related precautions to be taken14	5
4.	Arrange teeth	Arranging teeth:14• Concept, need and importance of arranging teeth14• Uses and application of arranging teeth14	5

		• Principles and procedures for arranging teeth			
		Arranging teeth			
		• Related precautions to be			
		taken			
		Related records to be taken			
5.	Process denture (Perform	Processing denture (Performing	4	14	18
	flasking/dewaxing /packing/curing)	flasking/dewaxing			
		/packing/curing):			
		• Concept, need and			
		importance of processing			
		denture (Performing			
		flasking/dewaxing			
		/packing/curing)			
		• Uses and application of			
		(Porforming			
		flasking/dewaying			
		/packing/curing)			
		 Principles and procedures for 			
		processing denture			
		(Performing			
		flasking/dewaxing			
		/packing/curing)			
		 Processing denture 			
		(Performing			
		flasking/dewaxing			
		/packing/curing)			
		Related precautions to be			
		taken			
		• Related records to be taken			
6.	Perform Trimming/ Finishing	Performing Trimming/ Finishing	2	8	10
	/Polishing	/Polishing:			
		• Concept, need and			
		importance of performing			
		Trimming/ Finishing			
		/Polishing			
		• Uses and application of			
		performing Trimming/			
		Finisning / Polisning			
		• Principles and procedures for			
		Finishing /Polishing			
1	1	I IIISIIIIIZ / I OIISIIIIIZ	1	1	1

		 Performing Trimming/ Finishing /Polishing Related precautions to be taken Related records to be taken 			
	Sub-total:		10	38	48
	Sub module: 2: C	omplete Denture (CD)			
	Description: It includes knowledge Denture (CD).	and skills related to fabricating Con	nplete		
	Objective:To fabricate Complete Dentu:	re (CD)			
	Task : Each task includes task statement, related technical knowledge necessary to know for carrying out the task in a professional way and the time allocation for both the theory and practical aspects of the task.				
	8 hrs.	(Th.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.)	Т	ime (H	rs.)
SN	Tasks	Related technical knowledge	Th.	Pr.	Tot.
1.	Prepare custom tray	 <u>Preparing custom tray</u>: Concept, need and importance of custom tray Uses and application of custom tray Principles and procedures for preparing custom tray Preparing Custom tray Related precautions to be taken Related records to be taken 	1.6	6	7.6
2.	Prepare temporary denture base and occlusal Rim	 <u>Preparing temporary denture base</u> <u>and occlusal Rim</u>: Concept, need and importance of temporary denture base and occlusal Rim Uses and application of temporary denture base and occlusal Rim Principles and procedures for preparing temporary denture base and occlusal Rim Preparing temporary denture base and occlusal Rim Related precautions to be taken 	1.6	6	7.6

		Related records to be taken			
3.	Perform Mounting(articulation)	Performing Mounting(articulation): • Concept, need and importance of performing Mounting(articulation) • Uses and application of performing Mounting(articulation) • Principles and procedures for performing Mounting(articulation) • Principles and procedures for performing Mounting(articulation) • Performing Mounting(articulation) • Related precautions to be taken • Related records to be taken	1.6	6	7.6
4.	Process denture (Flasking, dewaxing, packing, curing)	 Processing denture (Flasking, dewaxing, packing, curing): Concept, need and importance of processing denture (Flasking, dewaxing, packing, curing) Uses and application of processing denture (Flasking, dewaxing, packing, curing) Principles and procedures for processing denture (Flasking, dewaxing, packing, curing) Processing denture (Flasking, dewaxing, packing, curing) Processing denture (Flasking, dewaxing, packing, curing) Processing denture (Flasking, dewaxing, packing, curing) Related precautions to be taken Related records to be taken 	1.6	8	9.6
5.	Perform Trimming/ Finishing /Polishing	 <u>Performing Trimming/ Finishing</u> <u>Polishing</u>: Concept, need and importance of Trimming/ Finishing /Polishing Uses and application of Trimming/ Finishing /Polishing Principles and procedures for 	1.6	6	7.6

	Sub-total: Sub mod Description: It includes knowledge a Objective: • To fabricate Ortho Plate	Trimming/ Finishing /Polishing • Performing Trimming/ Finishing /Polishing • Related precautions to be taken • Related records to be taken ule: 3: Ortho Plate and skills related to fabricating Ortho	8 Plate.	32	40
	Task: Each task includes task stateme	ent, related technical knowledge neces	sary to	know	
	for carrying out the task in a profession	onal way and the time allocation for be	oth the	theory	
	and practical aspects of the task.	(Th) + 46 hrs (Pr) - 56 hrs (Hrs)	Т	ime (H	rs)
SN	Tasks	Related technical knowledge	Th	Pr	Tot
2	Fabricate Adams Clasp	 Fabricating labial bow(Short/Long): Concept, need and importance of fabrication of labial bow(Short/Long) Identification and application of labial bow(Short/Long) Principles and procedures for fabricating labial bow(Short/Long) Fabricating labial bow(Short/Long) Related precautions to be taken Related records to be taken 	2	7	9
2.	Fabricate Adams Clasp	 Fabricating Adams Clasp: Concept, need and importance of fabrication of Adams Clasp Identification and application of Adams Clasp Principles and procedures for fabricating Adams Clasp Fabricating Adams Clasp Related precautions to be taken 	2		9

		• Related records to be taken			
3.	Fabricate C-clasp	 Fabricating C-clasp: Concept, need and importance of fabrication of C-clasp Identification and application of C-clasp Principles and procedures for fabricating C-clasp Fabricating C-clasp Related precautions to be taken Related records to be taken 	2	7	9
4.	Fabricate spring (Z)	 Fabricating spring (Z): Concept, need and importance of fabrication of spring (Z) Identification and application of spring (Z) Principles and procedures for fabricating spring (Z) Fabricating spring (Z) Related precautions to be taken Related records to be taken 	1	7	8
5.	Perform processing	 <u>Performing processing</u>: Concept, need and importance of processing Principles and procedures for processing Performing processing Related precautions to be taken Related records to be taken 	1	6	7
6.	Fabricate bite plate (Anterior/ posterior)	 Fabricating bite plate (Anterior/posterior): Concept, need and importance of fabrication of bite plate (Anterior and posterior) Identification and application of bite plate (Anterior and posterior) 	1	6	7

		 Principles and procedures for fabricating bite plate (Anterior and posterior) 			
		 Fabricating bite plate 			
		(Anterior and posterior)			
		 Related precautions to be 			
		taken			
		 Related records to be taken 			
7.	Fabricate Night Guard (acrylic)	Fabricating Night Guard	1	6	7
, -		(acrylic):	_		
		• Concept, need and			
		importance of fabrication of			
		Night Guard (acrylic)			
		• Identification and application			
		of Night Guard (acrylic)			
		• Principles and procedures for			
		fabricating Night Guard			
		(acrylic)			
		Fabricating Night Guard			
		(acrylic)			
		• Related precautions to be			
		taken			
		• Related records to be taken			
	Sub-total:		10	46	56
	Module: 3: Br	idge and mouth guard			
	Description: It includes knowledge Temporary Crown / Bridge and Bite	and skills related to the preparatio Rest (Mouth Guard)	n of A	Acrylic	
	Objectives:				
	To prepare Acrylic Temporar	v Crown / Bridge			
	• To prepare Bite Rest (Mouth	Guard)			
	Sub modules:	/			
	1: Acrylic Temporary Crown / B	ridge			
	2: Bite Rest (Mouth Guard)				
	Sub module: 1: Acry	lic Temporary Crown / Brid	lge		
	Description: It includes knowledge	and skills related to the preparatio	n of A	Acrylic	
	Temporary Crown / Bridge.				
	Objective:				
	To prepare Acrylic Temporar	y Crown / Bridge			
	Task: Each task includes task stateme	ent, related technical knowledge neces	sary to	know	
	for carrying out the task in a professio	nal way and the time allocation for bo	oth the	theory	
	and practical aspects of the task.				
	8 hrs.	(1n.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.)	T	ime (H	rs.)

SN	Tasks	Related technical knowledge	Th.	Pr.	Tot.
1.	Prepare wax pattern for crown/ Bridge	 Preparing wax pattern for crown/ Bridge: Concept, need and importance of wax patterns / crown/ bridge/ preparing wax patterns for crown/ bridge Identification and application of wax patterns / crown/ bridge Principles and procedures for preparing wax pattern for crown/ Bridge Preparing wax pattern for crown/ Bridge Related precautions to be taken Related records to be taken 	2	7	9
2.	Dewax pattern by boiling water	 <u>Dewaxing pattern by boiling</u> <u>water</u>: Concept, need and importance of dewaaxed pattern/ dewaxing pattern Identification and application of dewaaxed pattern Principles and procedures for dewaxing pattern by boiling water Dewaxing pattern by boiling water Related precautions to be taken Related records to be taken 	2	7	9
3.	Brush cold mold seal	 <u>Brushing cold mold seal</u>: Concept, need and importance of brushed cold mold seal/ brushing cold mold seal Identification and application of brushed cold mold seal Principles and procedures for brushing cold mold seal Brushing cold mold seal 	2	6	8

		• Related precautions to be			
		taken			
		Related records to be taken		_	_
4.	Cure Acrylic pattern	 Curing Acrylic pattern: Concept, need and importance of Acrylic pattern/ cured Acrylic pattern Identification and application of Acrylic pattern/ cured Acrylic pattern Principles and procedures for curing Acrylic pattern Curing Acrylic pattern Related precautions to be taken Related records to be taken 	1	6	7
5.	Finish Acrylic pattern	 Finishing Acrylic pattern: Concept, need and importance of finished Acrylic pattern Identification and application of finished Acrylic pattern Principles and procedures for finishing Acrylic pattern Finishing Acrylic pattern Related precautions to be taken Related records to be taken 	1	6	7
	Sub-total:		8	32	40
	Sub module: 2:	Bite Rest (Mouth Guard)			
	Description: It includes knowledge (Mouth Guard).	and skills related to the preparation	of Bit	e Rest	
	Objective:				
	• To prepare Bite Rest (Mouth	Guard)			
	Task: Each task includes task stateme	ent, related technical knowledge neces	sary to	know	
	for carrying out the task in a profession	nal way and the time allocation for bo	oth the	theory	
	and practical aspects of the task.		T	• (11	
CNI	6 hrs.	(Th.) + 26 hrs. $(Pr.) = 32$ hrs. (Hrs.)	1	ime (H	rs.)
SN 1		Related technical knowledge	1h.	Pr.	Tot.
1.	Prepare wax pattern for bite rest	 <u>reparing wax pattern for bite</u> <u>rest</u>: Concept, need and importance of preparing wax 	1.5	0.0	ð

		 pattern for bite rest Identification and application of wax pattern for bite rest Principles and procedures for preparing wax pattern for bite rest Preparing wax pattern for bite rest Related precautions to be taken Related records to be taken 	
2.	Dewax pattern for bite rest	Dewaxing pattern for bite rest:1.56.58• Concept, need and importance of dewaxing/ dewaxed patterns	8
3.	Cure pattern for bite rest	Curing pattern for bite rest:1.56.58• Concept, need and importance of curing /cured patterns for bite rest1.56.58• Identification and application of cured patterns• Principles and procedures for curing patterns for bite rest• Curing patterns for bite rest• Related precautions to be taken• Related records to be taken	8
4.	Finish pattern for bite rest	Finishing pattern for bite rest:1.56.58• Concept, need and importance of finishing/finished patterns for bite rest168• Identification and application1111	8

	Sub-total:	 of finished patterns for bite rest Principles and procedures for finishing pattern for bite rest Finishing pattern for bite rest Related precautions to be taken Related records to be taken 	6	26	32			
	Module: 4: Re	epair and Maintenance	0	20	52			
	Description: It includes knowledge and skills on related repair and maintenance works.							
	Objectives:							
	• To perform related repair and	l maintenance works						
	Task : Each task includes task statemet for carrying out the task in a professio and practical aspects of the task.	ent, related technical knowledge neces nal way and the time allocation for be	ssary to oth the	know theory				
	2 hrs.	(Th.) + 14 hrs. $(Pr.) = 16$ hrs. $(Hrs.)$	Т	ime (H	rs.)			
SN	Tasks	Related technical knowledge	Th.	Pr.	Tot.			
1.	Repair RPD	Repair of RPD:	0.5	3.5	4			
		 Concept of repairing RPD Identification of Identification of repairing needs of RPD Principle and procedures for repairing RPD Repairing of RPD Related precautions to be taken Related records to be kept 						
2.	Repair CD	 <u>Repair of CD</u>: Concept of repairing CD Identification of CD Identification of repairing needs of CD Principle and procedures for repairing CD Repairing of CD Related precautions to be taken Related records to be kept 	0.5	3.5	4			
3.	Repair Orthodontic Plate	Repair of Orthodontic Plate:	0.5	3.5	4			

		 Concept of rep Orthodontic Pl Identification of Plate Identification of needs of Orthod Principle and prepairing Orthod Repairing of Or Plate Related precavitaken Related record 	bairing late of Orthodontic of repairing odontic Plate procedures for odontic Plate Orthodontic Plate Orthodontic		
4.	Repair/maintain hanging motor unit /burs/micro motor	 Repairing/maintain motor unit /burs/mi Concept of repairing/main hanging motor /burs/micro mo Identification of motor unit /burs/ Identification of needs of hangi /burs/micro mo Principle and p repairing/main hanging motor /burs/micro mo Repairing /main hanging motor /burs/micro mo Related precau taken Related record 	ing hanging icro motor:0.5icro motor:0.5icro motor:0.5icro motor:0.5icro motor0of hanging rs/micro motor0of repairing ng motor unit0of repairing or cedures for itaining toor0intaining of unit0intaining of tunit0intaining too tunit0is to be s to be kept0	3.5	4
	Sub-total:		2	14	16
	Total:		62	258	320

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Module: 5: Common module	
Description: This module consists of skills and knowledge related to applied math,	
occupational health and safety, HIV/AIDS, first aid, communication, and small	
business management applicable in the related job performances.	
Objectives: After its completion the trainees will be able:	

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	• To carry out simple mathematical calculations related to the occupation						
	• To be familiar with hazards related to this occupation						
	• To apply preventive measures for occupational health and safety						
	• To apply first aid measures						
	• To apply preventive measures for HIV/AIDS						
	To communicate with oth	ners					
	To apply skills of small b	business management					
	Sub modules:						
	1. Applied math						
	2. Occupational health and	safety					
	3. First aid						
	4. HIV/AIDS						
	5. Communication						
	6. Small business managem	ent					
	Sub m	odule: 1: Applied math					
	Description: It consists of skills	and knowledge related to mathematical c	alculat	tions			
	applicable in the related occupati	ional performances.					
	Objective: After its completion the trainees will be able:						
	• To carry out simple mathematical calculations that must be done for the						
	effective performance in the occupational job.						
	Tasks : To fulfill the objective the trainees are expected to get proficiency on the following tasks/objective to get her with their related task right in a value day.						
	following tasks/skills/steps together with their related technical knowledge: The $(4 \text{ hrs}) + \text{Dr} (16 \text{ hrs}) = \text{Tot} (20 \text{ hrs})$						
SN	The first $(4 \text{ ms.}) + 11$. (10 ms) = 10t. (Tasks or skills/ steps	Related technical knowledge	Th	$\frac{Dr}{Pr}$	Tot		
1	Carry out simple addition	Addition:	0.2	0.8	1		
1.	applicable in job situation	• Concept	0.2	0.0	1		
	appricable in job situation	Concept Simple colorisis no					
		• Simple calculations					
2		Application in the occupation	0.2	0.0	1		
2.	Carry out simple subtraction	Subtraction:	0.2	0.8	1		
	applicable in job situation	• Concept					
		Simple calculations					
		Application in the occupation					
3.	Carry out simple	<u>Multiplication</u>	0.2	0.8	1		
	multiplication applicable in job	• Concept					
	situation	Simple calculations					
		• Application in the occupation					
4.	Carry out simple division	Division:	0.2	0.8	1		
	applicable in job situation	Concept					
		• Simple calculations					
		• Application in the occupation					
5.	Carry out measurements	Measurement:	0.2	0.8	1		
	J		1				
		Concept					
		• Concept			27		

1					
		• Application in the occupation			
6.	Convert units of measurement	Units of measurement:	0.2	0.8	1
		• Concept			
		• Units of measurement			
		Unit conversion			
		Application			
7.	Convert units of measuring	Units of measuring temperature:	0.2	0.8	1
	temperature	Concept			
		• Units of temperature			
		measurement			
		• Unit conversion			
		Application			
8	Calculate area	Area:	0.2	0.8	1
0.		• Concept	0.2	0.0	1
		• Eormula			
0		• Application	0.0	0.0	1
9.	Calculate volume	volume:	0.2	0.8	1
		• Concept			
		• Formula			
		Calculation			
		Application			
10.	Calculate weight	Weight:	0.2	0.8	1
		• Concept			
		• Formula			
		Calculation			
		Application			
11.	Calculate percentage	Percentage:	0.2	0.8	1
		Concept			
		• Formula			
		Calculation			
		Application			
12	Calculate ratio and proportions	Ratio and proportions.	0.2	0.8	1
	calculate ratio and proportions	Concept	0.2	0.0	1
		- Formula			
10	And Datasan C 1	Application	0.2		1
13.	Apply Pythagoras formula	Pythagoras formula:	0.2	0.8	1
		• Concept			
		• Formula			

		Calculation					
		Application					
14.	Apply unitary method	Unitary method:	0.2	0.8	1		
		Concept					
		Calculation					
		Application					
15.	Calculate simple interest	Simple interest:	0.2	0.8	1		
	-	Concept					
		• Formula					
		Calculation					
		Application					
16.	Calculate unit cost	Unit cost:	0.2	0.8	1		
		Concept					
		• Formula					
		Calculation					
		Application					
17.	Calculate per unit income	Per unit income:	0.2	0.8	1		
		Concept					
		• Formula					
		Calculation					
		Application					
18.	Calculate profit and loss	Profit and loss:	0.2	0.8	1		
		Concept					
		• Formula					
		Calculation					
		Application					
19.	Perform billing	Billing:	0.2	0.8	1		
		• Concept					
		Calculation					
		• Bill format					
		• Procedure					
		Application					
20.	Prepare simple balance sheet	Balance sheet:	0.2	0.8	1		
		• Concept					
		• Format					
		• Procedure					
		Application					
	Total:		4	16	20		
	Sub module: 2: 0	Occupational health and safet	y				
	Description: It consists of skills and knowledge related to occupational health and						

	safety applicable in the related oc	cupational performances			
	Objectives: After its completion the trainees will be able:				
	• To be familiar with hazards related to this occupation				
	• To apply preventive measures	for occupational health and safety			
	Tasks: To fulfill the objective the	trainees are expected to get proficiency	on the		
	following tasks/skills/steps togeth	er with their related technical knowledge	:		
	Th. $(2 \text{ hrs.}) + \text{Pr.} (8 \text{hrs}) = \text{Tot.} (10)$	hrs.)	Time	(hrs.)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
Be f	amiliar with hazards related to this	occupation		1	1
1.	Be familiar with accident	Accident hazards:	0.2	0.8	1
	hazards	• Concept			
		• Causes			
		• Procedures for managing this			
		hazard			
2.	Be familiar with physical	Physical hazards:	0.2	0.8	1
	hazards	• Concept			
		• Causes			
		• Procedures for managing this			
		hazard			
3.	Be familiar with chemical	Chemical hazards:	0.2	0.8	1
	hazards	• Concept			
		• Causes			
		• Procedures for managing this			
		hazard			
4.	Be familiar with biological	Biological hazards:	0.2	0.8	1
	hazards	• Concept			
		• Causes			
		• Procedures for managing this			
		hazard			
5.	Be familiar with	Ergonomic /psychological /	0.2	0.8	1
	ergonomic/psychological /	organizational factors:			
	organizational factors:	• Concept of :			
		Ergonomic factors			
		 Psychological factors 			
		 organizational factors 			
		Procedures for managing hazards			
		caused by these factors			
	Sub-total:		1	4	4
App	ly preventive measures for occupat	ional health and safety			
1.	Ware safety wares	Safety wares:	0.2	0.5	0.7
		Identification			
		• Needs			

		Wearing procedures			
2.	Inspect workplace before	Workplace inspection:	0.2	0.5	0.7
	working	Concept			
	-	Principle and procedures			
		 Records keeping 			
3.	Inspect	Inspection of	0.1	0.5	0.6
	tools/materials/equipment	tools/materials/equipment:			
	before use	Concept and identification			
		Principle and procedures			
		Records keeping			
4.	Be prevented from accident	Prevention of accident hazards:	0.1	0.5	0.6
	hazards	Concept	0.11	0.0	0.0
		Being prevented from accident			
		hazards			
		• Records keeping			
5.	Be prevented from physical	Prevention of physical hazards:	0.1	0.5	0.6
	hazards	Concept			
		• Being prevented from physical			
		hazards			
		• Records keeping			
6.	Be prevented from chemical	Prevention of chemical hazards:	0.1	0.5	0.6
	hazards	Concept			
		Being prevented from chemical			
		hazards			
		• Records keeping			
7.	Be prevented from biological	Prevention of biological hazards:	0.1	0.5	0.6
	hazards	Concept			
		Being prevented from biological			
		hazards			
		Records keeping			
8.	Be prevented from	Prevention of	0.1	0.5	0.6
	ergonomic/psychological /	ergonomic/psychological /			
	organizational factors that	organizational factors that create			
	create problems/hazards.	problems/hazards:			
		• Concept			
		Being prevented from			
		ergonomic/psychological /			
		organizational factors that create			
		Proprieta kooping			
	Sub-total:	Kecords keeping	1	4	5
	Total:		2	8	10
L	100010	1	-	U	31

	Sub	module: 3: First aid				
	Description: It consists of skills a	nd knowledge related to first aid measur	es appl	icable		
	in the related occupational performances.					
	Objective: After its completion the	e trainees will be able:				
	• To a pply first aid measures					
	Tasks: To fulfill the objective the	trainees are expected to get proficiency of	on the			
	following tasks/skills/steps togeth	er with their related technical knowledge	:			
	Th. $(1 \text{ hrs.}) + \text{Pr.} (4 \text{ hrs}) = \text{Tot.} (5 \text{ l})$	urs.)	Time	(hrs.)		
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.	
1.	Carryout simple dressings	Carryout simple dressings:	0.10	0.40	0.5	
		• Concept				
		• Needs				
		• Procedures				
		• Precautions				
		• Recording				
2.	Apply simple bandages	Apply simple bandages:	0.10	0.40	0.5	
		• Concept				
		• Needs				
		• Procedures				
		Precautions				
		Recording				
3.	Apply first aid for simple	Apply first aid for simple wounds:	0.10	0.40	0.5	
	wounds	Concept				
		• Needs				
		Procedures				
		Precautions				
		Recording				
4.	Apply first aid for heat	Apply first aid for heat /chemical	0.10	0.40	0.5	
	/chemical burns	burns:				
		• Concept				
		• Needs				
		Procedures				
		Precautions				
		• Recording				
5.	Apply first aid for injuries/cuts	Apply first aid for injuries/cuts:	0.10	0.40	0.5	
	v	Concept				
		• Needs				
		Procedures				
		Precautions				
		• Recording				
6.	Apply first aid for fracture	Apply first aid for fracture:	0.10	0.40	0.5	

		Concept			
		• Needs			
		Procedures			
		Precautions			
		Recording			
7.	Apply first aid for simple	Apply first aid for simple bleeding:	0.10	0.40	0.5
	bleeding	Concept			
		• Needs			
		Procedures			
		Precautions			
		Recording			
8.	Apply first aid for insect bites	Apply first aid for insect bites:	0.05	0.20	0.25
		Concept			
		• Needs			
		Procedures			
		Precautions			
		Recording			
9.	Apply first aid for animal bites	Apply first aid for animal bites:	0.05	0.20	0.25
		Concept			
		• Needs			
		Procedures			
		Precautions			
		• Recording			
10.	Apply first aid for frost bite	Apply first aid for frost bite :	0.05	0.20	0.25
		• Concept			
		• Needs			
		• Procedures			
		• Precautions			
		Recording			
11.	Apply first aid for simple	Apply first aid for simple poisoning:	0.05	0.20	0.25
	poisoning	• Concept			
		• Needs			
		Procedures			
		• Precautions			
		Recording			
12.	Apply first aid for electrical	Apply first aid for electrical shock:	0.05	0.20	0.25
	shock	• Concept			
		• Needs			
		• Procedures			
		• Precautions			
		Recording	0.07	0.00	0.5-
13.	Apply first aid for choking/	Apply first aid for choking/	0.05	0.20	0.25
					33

	drowning Total:		 <u>drowning</u>: Concept Needs Procedures Precautions Recording 	1	4	5
	Sub ı	m	odule: 4: HIV/AIDS			
	Description: It consists of skills a	an	d knowledge related to safety			
	measures to be followed for the pr	re	evention of HIV/AIDS including its			
	management.					
	Objectives: After its completion	th	e trainees will be able:			
	• To state the concept of HIV/A	AI	DS			
	• To apply safety measures for	pı	revention of HIV/AIDS			
	Tasks: To fulfill the objective the	e t	rainees are expected to get proficiency			
	on the following tasks/skills/steps	s t	ogether with their related technical			
	knowledge:		x	— ;	/1)	
	$\frac{\text{Th.}(1 \text{ hrs}) + \text{Pr.}(4 \text{ hrs}) = \text{Tot.}(5 \text{ hrs})}{1 \text{ tr}}$	rs)	Time	(hrs)	TT (
SN 1	Tasks or skills/ steps	_	Related technical knowledge	Th.	Pr.	Tot.
1.	State the concept of		State the concept of HIV/AIDS:	0.5	2	2.5
	 Define HIV Enlist modes of transmission of HIV Enlist signs and symptoms of HIV infected person Enlist stages of HIV Define AIDS Enlist signs and symptoms of AIDS Enlist current status of global HIV/AIDS Enlist difference between HIV/AIDS 		 Definition of HIV: Modes of transmission of HIV Signs and symptoms of HIV infected person Stages of HIV <u>AIDS</u>: Definition of AIDS Signs and symptoms of AIDS Current status of global HIV/AIDS Difference between HIV and AIDS 			
2.	 Apply safety measures for prevention of HIV/AIDS: 1. Keep touch with single partner for sexual intercourse 2. Ensure safe intercourse 3. Use condom carefully and consistently during each act of sexual intercourse in case of other than single sex 		 <u>Apply safety measures for</u> <u>prevention of HIV/AIDS</u>: Keeping touch with single partner for sexual intercourse Ensuring safe intercourse Using condom carefully and consistently during each act of sexual intercourse in case of other than single sex partner 	0.5	2	2.5

	 Keep away from sharing syringes, needles and other skin piercing instrument with HIV infected people Keep away from sharing toothbrushes, blade razors or other instruments that could become contaminated from blood Keep away from handling clothes or cloths that are visibly contaminated with blood Follow positive health behavior Get blood be tested to ensure HIV negative/positive 	 Recepting away from sharing syringes, needles and other skin piercing instrument with HIV infected people Keeping away from sharing toothbrushes, blade razors or other instruments that could become contaminated from blood Keeping away from handling clothes or cloths that are visibly contaminated with blood Positive health behavior Getting blood be tested to ensure HIV negative/positive 				
	Total:		1	4	5	
		iule: 5: Communication	• •	.1		
	Description : It consists of the skills and knowledge related to communication in the related occupation. Each task consists of its steps, related technical knowledge and hour distribution					
	Objectives : After its completion	the trainees will be able:				
	Objectives: After its completion the trainees will be able:• To handle telephone calls• To communicate with donors To communicate with financial institutes• To handle fax• To communicate with donors To communicate with financial institutes• To handle mail• To link with media• To write letters• To disseminate information• To write memos / tips / notes / notice• To disseminate information• To perform internal communication• Communicate with senior.• To perform external communication• Communicate with juniors.• To perform oral communication• Request / purchase tool, supplies, materials and equipment.• To perform written rommunication• Fill up leave requisition form.					
	following tasks/skills/steps toget	er with their related technical knowledge	:			
	Th. $(2 \text{ hrs.}) + \text{Pr.}(8 \text{ hrs}) = \text{Tot.}(1000 \text{ Jm})$) hrs.)	Time	(hrs.)		
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.	

1	Handle telephone calls	Handling telephone calls:	0.1	04	0.5
1.	Hundre telephone euris	 Concept need and importance 	0.1	0.1	0.5
		 Operating principles and 			
		procedures			
		Care and maintenance			
		 Care and maintenance Safety precoutions to be taken 			
		 Safety precautions to be taken Kooping activity records 			
2	Handle for	Keeping activity records	0.1	0.4	0.5
<i>2</i> .	Hallule lax	Concept need and importance	0.1	0.4	0.5
		Concept, need, and importance			
		• Operating principles and procedures			
		 Care and maintenance 			
		 Safety precautions to be taken 			
		 Keeping activity records 			
3	Handle mail	Handling mail:	0.1	0.4	0.5
5.		• Concept need and importance	0.1	0.4	0.5
		 Operating principles and 			
		• Operating principles and procedures			
		Care and maintenance			
		 Safety precautions to be taken 			
		 Keeping activity records 			
4	Write letters	Writing letters:	0.1	04	0.5
		• Concept need and importance	0.1	0.1	0.0
		 Types of letter 			
		 Component parts of each type of 			
		letter			
		• Format of each type of letter			
		• Writing letters			
		• Precautions to be taken			
		• Keeping activity records			
5.	Write memos / tips / notes /	Writing memos / tips / notes / notice:	0.1	0.4	0.5
	notice	• Concept, need, and importance			
		• Component parts of memos / tips			
		/ notes / notice			
		• Format of memos / tips / notes /			
		notice			
		• Writing memos / tips / notes /			
		notice			
		• Precautions to be taken			
		Keeping activity records			
6.	Prepare simple report	Preparing simple report:	0.1	0.4	0.5
		• Concept, need, and importance			

		• Component p	arts of a report			
		• Format of a r	report			
		• Writing a rep	oort			
		Precautions to	be taken			
		• Keeping activ	vity records			
7.	Prepare simple proposal	Preparing simple	proposal: 0).1	0.4	0.5
		Concept, need	1, and importance			
		Component p	arts of a proposal			
		• Format of a p	roposal			
		• Writing a pro	posal			
		Precautions to	be taken			
		• Keeping activ	vity records			
8.	Perform internal/ external	Performing intern	nal/ external 0).1	0.4	0.5
	communication	communication:				
		• Concept, need	l, and importance			
		• Principles, pro	ocedures, and			
		application				
		• Performing in	ternal/ external			
		communication	on			
		• Precautions to	be taken			
		 Keeping activ 	rity records			
9.	Perform horizontal/vertical	Performing horizo	ontal/vertical 0).1	0.4	0.5
	communication	communication:				
		• Concept, need	l, and importance			
		• Principles, pro	ocedures, and			
		application				
		• Performing he	orizontal/vertical			
		communicatio)n			
		Precautions to	be taken			
10		Keeping activ	ity records	. 1	0.4	0.5
10.	Perform oral/ written	Performing oral/	written 0).1	0.4	0.5
	communication	<u>Communication</u> .	1 and importance			
		 Concept, need Dringinlag, nr 	i, and importance			
		• Principles, pro	Scedures, and			
		Derforming or	rol/writton			
		• Ferrorning of	al/ withen			
		 Precautions to 	be taken			
		 Record of the section o	vity records			
11	Communicate with financial	Communicating v	with financial) 1	04	0.5
11.	institutes	institutes.			0.4	0.5
		 Concept. need 	1. and importance			

				1	1
		• Principles, procedures, and			
		application			
		• Communicating with financial			
		institutes			
		• Precautions to be taken			
		Keeping activity records			
12.	Link with media	Linking with media:	0.1	0.4	0.5
		• Concept, need, and importance			
		• Principles, procedures, and			
		application			
		• Linking with media			
		• Precautions to be taken			
		Keeping activity records			
13.	Disseminate information	Disseminating information:	0.1	0.4	0.5
		• Concept, need, and importance			
		• Principles, procedures, and			
		application			
		Disseminating information			
		• Precautions to be taken			
		Keeping activity records			
14.	Write job application	Writing job application:	0.1	0.4	0.5
		• Concept, need, and importance			
		• Component parts of job			
		application			
		• Format of job application			
		Writing job applications			
		• Precautions to be taken			
		Keeping activity records			
15.	Prepare resume	Preparing resume:	0.1	0.4	0.5
		• Concept, need, and importance			
		• Component parts of a resume			
		• Format of a resume			
		Writing resume			
		• Precautions to be taken			
		• Keeping activity records			
16.	Communicate with senior.	Communicating with senior:	0.1	0.4	0.5
		• Concept, need, and importance			
		• Principles, procedures, and			
		application			
		• Communicating with senior			
		• Precautions to be taken			
		• Keeping activity records			

17.	Communicate with juniors	Communicating with juniors:	0.1	0.4	0.5
	generation of the generation of the generation of the second seco	• Concept need and importance	011		0.0
		 Principles procedures and 			
		application			
		 Precautions to be taken 			
		 Keeping activity records 			
10	Deal with austomore/stake	Recepting activity records	0.1	0.4	0.5
10.	bolders	bolders:	0.1	0.4	0.5
	lioiders	Concert need and importance			
		• Concept, need, and importance			
		• Principles, procedures, and			
		• Communicating with juniors			
		• Precautions to be taken			
10		Keeping activity records		0.1	0.7
19.	Request / purchase tool,	Requesting / purchasing tool,	0.1	0.4	0.5
	supplies, materials and	supplies, materials and equipment:			
	equipment.	• Concept, need, and importance			
		• Principles, procedures, and			
		application			
		• Requesting / purchasing tool,			
		supplies, materials and			
		equipment			
		• Precautions to be taken			
		Keeping activity records			
20.	Fill up leave requisition form	Filling up leave requisition form:	0.1	0.4	0.5
		• Concept, need, and importance			
		• Principles, procedures, and			
		application			
		• Filling up leave requisition form			
		• Precautions to be taken			
		Keeping activity records			
		Total:	2	8	10
	Sub module: 6: 3	Small enterprise developmen	t		
	Description: It consists of the skill	ls and knowledge related to small enter	prise		
	development in the related occupation	tion. Each task consists of its steps, relat	ed tech	nnical	
	knowledge and hour distribution.				
	Objectives : After its completion t	he trainees will be able:			
	• To be familiar with entreprener	urship development			
	• To prepare a business plan				
	Tasks: To fulfill the objective the	trainees are expected to get proficiency	on the		
L	following tasks/skills/steps togethe	er with their related technical knowledge	:		
	Th. (4 hrs.) + Pr. (16 hrs.) = Tot. (2	20 hrs.)	Time	(hrs.)	

SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
	Entrepreneurship	Entrepreneurship development:			
	development:				
1.	Be familiar with business /	Business / entrepreneurship:	0.1	0.4	0.5
	entrepreneurship	• Concept, definitions, need, and			
		importance			
		• Precautions to be taken			
		Keeping activity records			
2.	Develop qualities of a	Qualities of a successful	0.1	0.4	0.5
	successful entrepreneur	entrepreneur:			
		• Concept and needs			
		• Qualities of a successful			
		entrepreneur			
		Keeping activity records			
3.	Follow professional ethics	Professional ethics:	0.1	0.4	0.5
		• Concept, need, and importance			
		Professional ethics			
		Interpretation			
		• Precautions to be taken			
		Keeping activity records			
4.	Analyze prevailing rules /	Prevailing rules / regulations/ laws	0.1	0.4	0.5
	regulations/ laws /acts related	<u>/acts related to the profession</u> :			
	to the profession	• Concept, need, and importance			
		• Prevailing rules / regulations/			
		laws /acts related to the			
		profession			
		• Interpretation			
		• Precautions to be taken			
-		Keeping activity records	0.1	0.4	0.5
5.	Develop skills of good	Good governance:	0.1	0.4	0.5
	governance	• Concept, need, and importance			
		Principles and procedures of			
		good governance			
		• Precautions to be taken			
6	Do fomilior with	Keeping activity re Entropropourship development/	0.1	0.4	0.5
0.	De lallillar Willi entrepreneurship development/	<u>Entrepreneursing development/</u>	0.1	0.4	0.5
	factors affecting the growth of	entrepreneurship:			
	entrepreneurship	Concept need and importance			
	entrepreneursmp	Entrepreneurship development			
		Factors affecting the growth of			
		entrepreneurship			

		Precautions to be taken			
7.	Develop an entrepreneurship competency development [ECD] program	 Keeping records <u>Entrepreneurship competency</u> <u>development [ECD] program</u>: Concept, need, and importance Entrepreneurship competency development [ECD] ECD program development Precautions to be taken Keeping records 	0.1	0.4	0.5
8.	 Be familiar with identification / selection/appraising/gaining instructional a support of a project Be familiar with identification of a project Be familiar with selection of a project Be familiar with appraising of a project Be familiar with gaining instructional a support of a project 	Identification / selection/appraising/gaining instructional a support of a project: • Concept, need, and importance • Identification of a project • Selection of a project • Appraising of a project • Gaining instructional a support of a project • Precautions to be taken • Keeping records	0.1	0.4	0.5
9.	Be familiar with the preparation of a comprehensive business plan for starting / acquiring /running a business	 Be familiar with the preparation of a comprehensive business plan for starting / acquiring /running a business: Preparation of a comprehensive business plan for starting a business Preparation of a comprehensive business plan for acquiring a business Preparation of a comprehensive business plan for acquiring a business Preparation of a comprehensive business plan for running a business Preparation of a comprehensive business plan for running a business Preparation of a comprehensive business plan for running a business Precautions to be taken Keeping records 	0.1	0.4	0.5
10.	Be familiar with marketing of products	 Be familiar with marketing of products: Concept of product, price, place, promotion marketing of products 	0.1	0.4	0.5

		• Precautions to be taken			
		Keeping records			
		Sub-total:	1	4	5
	Business plan:	Business plan:			
11.	Collect related information /	Collecting related information / data:	0.4	1.6	2
	data	• Concept, need, and importance of			
		data and information			
		• Difference between data and			
		information			
		• Principles and procedures for			
		collecting related information /			
		data			
		• Collecting related information /			
		data Duran tinun ta ha ta har			
		Precautions to be taken			
10	Property production plan	Keeping records Propering production plan:	0.4	16	2
12.	Prepare production plan	<u>Preparing production plan</u> .	0.4	1.0	2
		 Concept, need, and importance Component parts 			
		Component parts Eormat			
		 Principles and procedures 			
		 Precautions to be taken 			
		 Keeping records 			
13	Prepare cost plan	Preparing cost plan:	04	16	2
10.		• Concept need and importance	0.1	1.0	2
		 Component parts 			
		Format			
		 Principles and procedures 			
		• Precautions to be taken			
		• Keeping records			
14.	Prepare financial plan	Preparing financial plan:	0.4	1.6	2
		• Concept, need, and importance			
		Component parts			
		• Format			
		Principles and procedures			
		• Precautions to be taken			
		Keeping records			
15.	Prepare marketing plan	Preparing marketing plan:	0.4	1.6	2
		• Concept, need, and importance			
		Component parts			
		• Format			
		• Principles and procedures			

		All total:	3	314	390
		Common module total:	14	56	70
		Total:	4	16	20
		Sub-total:	3	12	15
		Keeping records			
		Precautions to be taken			
		Principles and procedures			
		• Concept, need, and importance			
17.	Appraise business plan	Appraising business plan:	0.4	1.6	2
		Keeping records			
		Precautions to be taken			
		Principles and procedures			
		Format			
		Component parts			
		• Concept, need, and importance			
16.	Prepare a business plan	Preparing a business plan:	0.6	2.4	3
		• Keeping records			
		• Precautions to be taken			

Appendices

R	leading materials			
•	Dental Materials - Mannapali	• Publication of Ministry Of Health on "Infection control in dentistry"	 Instructor selected books/manuals available in the market Instructor written books/manuals 	• Net search
E	quipment			
٠	Acrylizer	• Dental Lathe Cut	• Boiler	
٠	Hanging Motor	Vibrator	• Gas Set	
	Unit/Micromotor		Hydrolic Press	
•	Model Trimmer			
In	struments			
٠	Acrylic Trimming Burs	 Wax spatula 	Articulator	
٠	Bunsen Burner	• Rubber Bowl	Metal scale	
٠	Spirit Lamp	 Straight Spatula 	Lacron Carver	
٠	Wax Knife	 Curved Spatula 	 Macantosh Sheet 	
٠	Plaster Knife		Sand Paper mandril	
M	aterials			
٠	Dental Stone	• Heat cure acrylic	• Stainless steel	
٠	Dental Plaster	(Travelon)	wire(,21G,22G)	
٠	Die Stone	• Sand paper	• Disposable	
٠	Alginate	 Modeling Wax 	Syringe(5ml,10ml)	
•	Separating Media	• Shellac Base plate	• Spirit	
•	Self cure	Acrylic Teeth	• Cotton/Gauze	
	acrylic:RR(Liquid/Pow	Set(Premadent/Cos		
	der)	mo)		

SN	Tasks	Th.	Pr.	Tot.	
	Module: 1: Materials, equipment, instruments and				
	safety				
	Sub modules:				
	1: Materials/Equipment/Instruments				
	2: Laboratory Safety				
	Sub module: 1: Materials/Equipment/Instruments				
	10 hrs. (Th.) + 38 hrs. (Pr.) = 48 hrs. (Hrs.)	Ti	me (H	lrs.)	
SN	Tasks	Th.	Pr.	Tot.	
1.	Be familiar with Gypsum products and its types	1	6	7	
2.	Be familiar with Wax and its types used in dentistry	1	6	7	
3.	Be familiar with Resins and its types used in dentistry	1	6	7	
4.	Be familiar with impression material (Alginate,	2	6	8	
	compound)				
5.	Be familiar with instruments and equipment used in	4	8	12	
	Laboratory				
6.	Minimize wastage of materials	1	6	7	
	Sub-total:	10	38	48	
	Sub module: 2: Laboratory Safety				
	8 hrs. (Th.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.)		Time (Hrs.)		
SN	Tasks	Th.	Pr.	Tot.	
1.	Control cross infection in Laboratory	1.6	6.4	8	
2.	Adopt Universal Precaution in Laboratory	1.6	6.4	8	
3.	Minimize hazards from dental materials	1.6	6.4	8	
4.	Disinfect the dental cast	1.6	6.4	8	
5.	Dispose laboratory waste	1.6	6.4	8	
	Sub-total:	8	32	40	
	Module: 2: Fabrication				
	Sub modules:				
	1: Removable Partial Denture (RPD)				
	2: Complete Denture (CD)				
	3: Ortho Plate				
	Sub module: 1: Removable Partial Denture (RPD)				
	10 hrs. (Th.) + 38 hrs. (Pr.) = 48 hrs. (Hrs.)		me (H	rs.)	
SN	Tasks	Th.	Pr.	Tot.	
1.	Manipulate impression material(Alginate)	1	4	5	
2.	Pour dental cast (Plaster/stone)	1	4	5	
3.	Prepare Wax Plate	1	4	5	
4.	Arrange teeth	1	4	5	
5.	Process denture (Perform flasking/dewaxing	4	14	18	

List of modules, sub modules and time allocation

/packing/curing)					
Perform Trimming/ Finishing /Polishing		2	8	10	
Sub-total:		10	38	48	
Sub module: 2: Complete Denture (CD)					
8 hrs. (Th.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.)			Time (Hrs.)		
Tasks		Th.	Pr.	Tot.	
Prepare Custom tray		1.6	6	7.6	
Prepare temporary denture base and occlusal Rim		1.6	6	7.6	
Perform Mounting(articulation)		1.6	6	7.6	
Process denture (Flasking, dewaxing, packing, curing)		1.6	8	9.6	
Perform Trimming/ Finishing /Polishing		1.6	6	7.6	
Sub-total:		8	32	40	
Sub module: 3: Ortho Plate					
10 hrs. (Th.) + 46 hrs. (Pr.) = 56 hrs. (Hrs.)		Ti	me (H	rs.)	
Tasks		Th.	Pr.	Tot.	
Fabricate labial bow(Short/Long)		2	7	9	
Fabricate Adams Clasp		2	7	9	
Fabricate C-clasp		2	7	9	
Fabricate spring (Z)		1	7	8	
Perform processing		1	6	7	
Fabricate bite plate (Anterior, posterior)		1	6	7	
Fabricate Night Guard.(acrylic)		1	6	7	
Sub-total:		10	46	56	
Module: 3: Bridge and mouth guard					
Sub modules:					
1: Acrylic Temporary Crown / Bridge					
2: Bite Rest (Mouth Guard)					
Sub module: 1: Acrylic Temporary Crown / Bridge					
8 hrs. (Th.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.)			Time (Hrs.)		
Tasks		Th.	Pr.	Tot.	
Prepare wax pattern for crown/ Bridge		2	7	9	
Dewax pattern By boiling water		2	7	9	
Brush Cold mold seal		2	6	8	
Cure Acrylic pattern		1	6	7	
Finish Acrylic pattern		1	6	7	
v 1		-	0		
Sub-total:		8	32	40	
Sub-total: Sub module: 2: Bite Rest (Mouth Guard)		8	32	40	
Sub-total: Sub module: 2: Bite Rest (Mouth Guard) 6 hrs. (Th.) + 26 hrs. (Pr.) = 32 hrs. (Hrs.)		8 Tin	32 me (H	40 rs.)	
Sub-total:Sub module: 2: Bite Rest (Mouth Guard)6 hrs. (Th.) + 26 hrs. (Pr.) = 32 hrs. (Hrs.)Tasks		8 Tin Th.	32 me (H <u>Pr.</u>	40 rs.) Tot.	
Sub-total: Sub-total: Sub-total: Sub-total: 6 hrs. (Th.) + 26 hrs. (Pr.) = 32 hrs. (Hrs.) Tasks Prepare wax pattern for bite rest		8 Tin Th. 1.5	0 32 me (H Pr. 6.5	40 rs.) Tot. 8	
Sub-total:Sub module: 2: Bite Rest (Mouth Guard)6 hrs. (Th.) + 26 hrs. (Pr.) = 32 hrs. (Hrs.)TasksPrepare wax pattern for bite restDewax pattern for bite rest		8 Tin Th. 1.5 1.5	0 32 me (H Pr. 6.5 6.5	40 rs.) Tot. 8 8	
Sub-total:Sub-total:Sub-total:Sub-total:Sub-total:Output:6 hrs. (Mouth Guard)6 hrs. (Th.) + 26 hrs. (Pr.) = 32 hrs. (Hrs.)TasksPrepare wax pattern for bite restDewax pattern for bite restCure pattern for bite rest		8 Tin Th. 1.5 1.5 1.5	0 32 me (H Pr. 6.5 6.5 6.5	40 rs.) Tot. 8 8 8	
	/packing/curing) Perform Trimming/ Finishing /Polishing Sub-total: Sub module: 2: Complete Denture (CD) 8 hrs. (Th.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.) Tasks Prepare Custom tray Prepare temporary denture base and occlusal Rim Perform Mounting(articulation) Process denture (Flasking, dewaxing,packing,curing) Perform Trimming/ Finishing /Polishing Sub-total: Sub module: 3: Ortho Plate Sub-total: Sub module: 3: Ortho Plate 10 hrs. (Th.) + 46 hrs. (Pr.) = 56 hrs. (Hrs.) Tasks Fabricate labial bow(Short/Long) Fabricate Adams Clasp Fabricate C-clasp Fabricate Spring (Z) Perform processing Fabricate Night Guard.(acrylic) Sub-total: Module: 3: Bridge and mouth guard Sub-total: Module: 3: Bridge and mouth guard Sub-total: Module: 1: Acrylic Temporary Crown / Bridge 2: Bite Rest (Mouth Guard) Sub module: 1: Acrylic Temporary Crown / Bridge 2: Bite Rest (Mouth Guard) Sub-module: 1: Acrylic Temporary Crown / Bridge 2: Bite Rest (Mouth Guard) Sub module: 1: Acrylic Temporary Crown / Bridge 8 hrs. (Th.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.) Tasks Prepare wax pattern for crown/ Bridge Dewax pattern By boiling water Brush Cold mold seal Cure Acrylic pattern Finish Acrylic pattern	/packing/curing)Image: constraint of the system	/packing/curing)2Perform Trimming/ Finishing /Polishing2Sub-total:10Sub module: 2: Complete Denture (CD)108 hrs. (Th.) + 32 hrs. (Pr.) = 40 hrs. (Hrs.)TinTasksTh.Prepare Custom tray1.6Prepare temporary denture base and occlusal Rim1.6Perform Mounting(articulation)1.6Process denture (Flasking, dewaxing, packing, curing)1.6Perform Trimming/ Finishing /Polishing1.6Perform Trimming/ Finishing /Polishing1.6Sub-total:8Sub module: 3: Ortho Plate1010 hrs. (Th.) + 46 hrs. (Pr.) = 56 hrs. (Hrs.)TinTasksTh.Fabricate labial bow(Short/Long)2Fabricate C-clasp2Fabricate C-clasp2Fabricate bite plate (Anterior, posterior)1Fabricate Night Guard.(acrylic)1Module: 3: Bridge and mouth guard10Module: 3: Bridge and mouth guard2Sub modules:11: Acrylic Temporary Crown / Bridge22: Bite Rest (Mouth Guard)1Sub modules:11: Acrylic Temporary Crown / Bridge22: Bite Rest (Mouth Guard)22: Butern By boiling water22: Bush Cold mold seal22: Dewax pattern for crown/ Bridge22: Dewax pattern By boiling water22: Brush Cold mold seal22: Cure Acrylic pattern1	/packing/curing)Image: constraint of the system of the syste	

	Sub-total:		6	26	32	
	Module: 4: Repair and Maintenance					
	2 hrs. (Th.) + 14 hrs. (Pr.) = 16 hrs. (Hrs.)			Time (Hrs.)		
SN	Tasks		Th.	Pr.	Tot.	
1.	Repair RPD		0.5	3.5	4	
2.	Repair CD		0.5	3.5	4	
3.	Repair Orthodontic Plate		0.5	3.5	4	
4.	Repair/Maintain Hanging motor unit /burs/micro		0.5	3.5	4	
	motor					
	Sub-total:		2	14	16	
	Total:		62	258	320	

Job Analysis Product (List of duties and tasks)

Duty: A. Handle Materials/Equipment/Instruments

Tasks:

- 1. Handle Gypsum products
- 2. Handle Wax
- 3. Handle Resins
- 4. Handle impression material (Alginate/ compound)
- 5. Handle instruments / equipment used in Laboratory
- 6. Handle wastage of materials

Duty: B. Maintain Laboratory Safety

Tasks:

- 1. Control cross infection in Laboratory
- 2. Adopt Universal Precaution in Laboratory
- 3. Minimize hazards from dental materials
- 4. Disinfect the dental cast
- 5. Dispose laboratory waste

Duty: C. Fabricate Removable Partial Denture (RPD) Tasks:

- 1. Manipulate impression material(Alginate)
- 2. Pour dental cast (Plaster/stone)
- 3. Prepare Wax Plate
- 4. Arrange teeth
- 5. Process denture (Flasking, dewaxing, packing, curing)
- 6. Perform Trimming/ Finishing /Polishing

Duty: D. Fabricate Complete Denture (CD)

Tasks:

- 1. Prepare Custom tray
- 2. Prepare temporary denture base and occlusal Rim
- 3. Perform Mounting(articulation)
- 4. Process denture (Flasking, dewaxing, packing, curing)
- 5. Perform Trimming/ Finishing /Polishing

Duty: E. Fabricate Ortho Plate

Tasks:

- 1. Fabricate labial bow(Short/Long)
- 2. Fabricate Adams Clasp
- 3. Fabricate C-clasp
- 4. Fabricate spring (Z)
- 5. Perform processing
- 6. Fabricate bite plate (Anterior, posterior)
- 7. Fabricate Night Guard.(acrylic)

Duty: F. Prepare Acrylic Temporary Crown / Bridge Tasks:

1. Prepare wax pattern for crown/ Bridge

- 2. Dewax pattern By boiling water
- 3. Brush Cold mold seal
- 4. Cure Acrylic pattern
- 5. Finish Acrylic pattern

Duty: G. Prepare Bite Rest (Mouth Guard) Tasks:

- 1. Prepare wax pattern for bite rest
- 2. Dewax pattern for bite rest
- 3. Cure pattern for bite rest
- 4. Finish pattern for bite rest

Duty: H. Perform Repair /Maintenance Tasks:

- 1. Repair RPD
- 2. Repair CD
- 3. Repair Orthodontic Plate
- 4. Repair/Maintain Hanging motor unit /burs/micro motor

Duty: I. Communicate with other

Tasks:

- 1. Communicate with Senior Dental Lab Technician
- 2. Communicate with Assistant Lab Technician
- 3. Communicate with Dental Practitioners
- 4. Communicate with Dental Material suppliers
- 5. Communicate with Hospitals
- 6. Communicate with store keeper
- 7. Communicate with Dental Clinic
- 8. Communicate with patient
- 9. Communicate with Department In charge
- 10. Communicate with Oral health related NGO/INGO In charges

Duty: J. Develop Professionalism

Tasks:

- 1. Seek training places
- 2. Attend trainings
- 3. Attend Seminars/ Workshops related to Dental lab
- 4. Browse WWW
- 5. Watch AV programs related to Dental lab
- 6. Read Books / Journals related to Dental lab
- 7. Visit Equipped Dental Laboratories
- 8. Visit senior Dental Lab Mechanics
- 9. Visit Dentists