SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY
ISLAMABAD

INTEGRATED CURRICULUM

for
Bachelor of Dental Surgery
(Final Year BDS)

Dedication

Dedicated to all faculty Members of Curriculum Committee whose persistent efforts in the field of medical education will always be reminisced.

Preface

The Shaheed Zulfiqar Ali Bhutto Medical University (SZABMU), a public sector federal University, was established in the premises of postgraduate medical institute, Pakistan Institute of Medical Sciences, Islamabad by an ordinance of national assembly on 21 March, 2013.

Four medical colleges 1- School of Dentistry is constituent college others affiliated are 2- Rawal Institute of Health Sciences 3- Islamabad Medical &Dental College and 4- HBS Medical & Dental College are attached with the university.

Since its inception the university has made an impact in the field of healthcare, undergraduate, postgraduate medical education and research pertaining to grave health problems faced by our country.

In order to meet the standards of the World Federation of Medical Education a paradigm shift has ensued in the field of medical education. The standards provide a template for medical schools. This led to developing the curriculum as per WFME standards in congruence with the cultural, regional and demographic facets of the country.

Department of medical education of SZABMU started functioning in 2015. DME is 'headed by Dean and has various co-opted members including Dr. Fouzia Sultana and Dr. Zainab Abdullah who worked diligently and integrated the undergraduate curriculum in 2017. It was also made possible by the conscientious efforts of different curriculum committees who clipped it according to the requirement of the medical Colleges. The final draft of the curriculum is an attribute to all those who remained involved in the planning, development and evaluation of the curriculum.

Special appreciations for Prof. M Luqman for his infinite efforts in making this a reality.

Prof. Tanwir Khaliq

Vice Chancellor SZABMU

ACKNOWLEDGEMENTS

We would like to express our gratitude and appreciation to all those who gave us the opportunity to complete the curriculum.

Department of Medical Education is very grateful to the Worthy Vice Chancellor Prof. Tanwir Khaliq for his vision in initiating the integrated curriculum under the umbrella of Shaheed Zulfiqar Ali Bhutto Medical University in all affiliated Dental colleges. Our special gratitude to the entire curriculum committee for their support and hard work.

We would also like to thank Prof Anser Maxood, Prof Haroon Qazi and Brig Manzoor for his endless support and effort in guiding the team to achieve the goal.

Assistant Professor DME SZABMU

Dr.Zainab Abdullah

Dr.Fouzia Sultana

Curriculum Committee

Curriculum Committee for the development of Modular System at undergraduate level of all Medical and Dental Colleges affiliated with Shaheed Zulfiqar Ali Bhutto Medical University consists of following members:

• Prof Anser Maxood	Chairman	Shaheed Zulfiqar Ali Bhutto Medical University
• Prof. Zahoor Rana	Vice Chairman	Shaheed Zulfiqar Ali Bhutto Medical University
• Prof. Haroon Shahid Qazi	Secretary	Islamabad Medical and Dental College
• Brig. (R)Manzoor Ahmad	Member	Rawal Institute of Health Sciences
• Prof Arshad Malik	Member	HBS Dental College
• Prof Saad Asad	Member	Rawal Institute of Health Sciences
• Prof Tayyaba	Member	Islamabad Mdical and Dental College
• Dr.Zainab Abdullah	Member	Shaheed Zulfiqar Ali Bhutto Medical University
• Dr.Fouzia Sultana	Member	Shaheed Zulfiqar Ali Bhutto Medical University
• Prof Rehmah Sarfaraz	Member	Islamabad Medical and Dental College
• Prof. Saima Azam	Member	Islamabad Medical and Dental College
• Dr. Khalid M. Siddiqi	Member	Islamabad Medical and Dental College
• Prof. Asma Irfan	Member	Islamabad Medical and Dental College
• Prof. Samina Anjum	Member	Rawal Institute of Health Sciences
• Dr. Sadaf Jaffar	Member	Islamabad Medical and Dental College
• Dr. Nabeela Abbasi	Member	Rawal Institute of Health Sciences
• Dr. Maham Niazi	Member	Islamabad Medical and Dental College
• Dr. Farmanullah	Member	Federal Medical and Dental College

Modular Curriculum Development Committee

The Integrated modules for 4th year BDS class have been developed by the following faculty members:

Department of Oral and Maxillofacial Surgery (OMFS)

1. **Prof. Muhammad Arshad Malik**
2. **Prof. Zahoor Ahmad Rana**
3. **Prof. Kamran Khan**
4. **Prof. Khalid Mahmood Siddiqi**

Department of Prosthodontics

1. **Prof. Tayyaba Saleem**
2. **Prof. Bilal Ahmad**
3. **Dr. Farooq Kamran**

Department of Orthodontics

1. **Prof. Saad Asad**
2. **Prof. Haroon Shahid Qazi**
3. **Prof. Owais Khalid Durrani**

Department of Operative Dentistry

1. **Prof. Saima Azam**
2. **Prof. Nouman Noor**

Shaheed Zulfiqar Ali Bhutto Medical University

Curriculum Framework: BDS 4th Year

Clerkship			
Oral & maxillofacial surgery	Prosthodontics	Orthodontics	Operative Dentistry & endodontics including Pediatric dentistry
275 Hours	275 Hours	275 Hours	300 Hours
Annual University Exam	Annual University Exam	Annual University Exam	Annual University Exam

Term One

ORAL & MAXILLOFACIAL SURGERY
275 Hours

Term outcomes:

At the end of the first term the final year BDS student should be able to:

1. Diagnose a dental patient for simple dental extraction with reference to indications and contraindications.
2. Enlist various treatment modalities for a patient regarding exodontia.
3. Practice aseptic techniques while doing dental procedures.
4. Perform various Local Anesthetic techniques for various dental procedures.
5. Describe different techniques of exodontia for each tooth.
6. Diagnose and manage the medically compromise patients for dental procedures.
7. Diagnose and classify different dental impactions.
8. Describe the indications of exodontia under general anesthesia.
9. Describe different suturing techniques on typodonts.
10. Identify and describe different intraoral flaps used in OMFS.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. PBLs

PROSTHODONTICS
275 Hours

The Prosthodontic Patient and Conventional Complete Dentures, Occlusion and Articulators

Term outcomes:

At the end of the 1st term, the final year BDS student should be able to:

1. Define and describe various types of prosthesis
2. Describe the need of tooth replacement
3. Enlist various treatment options for a prosthodontic patient
4. Describe objectives/ requirements of a prosthesis (retention, stability and support)
5. Evaluate a dental patient for replacement of missing teeth with simple prosthesis.
6. Describe pre-prosthetic mouth preparation
7. Explain various impression theories and techniques for prosthodontic patients
8. Describe materials used in Prosthodontics
9. Explain Maxillo-mandibular relations
10. Classify and illustrate various articulators
11. Define occlusion and related terms, classify various occlusal schemes
12. Describe Hanau's quint for bilateral balanced occlusion
13. Describe and design different parts of complete dentures
14. Treat simple edentulous cases with conventional complete dentures
15. Describe the clinical and laboratory procedures for fabrication and delivery of complete dentures
16. Give post insertion instructions to the complete denture patient
17. Describe post insertion complaints
18. Enlist and explain the sequel caused by wearing complete dentures
19. Enlist and explain the dental problems of a geriatric patient

Teaching Methodology):

1. Interactive Lectures
2. Clinical and laboratory Demonstrations
3. Small group discussions, Case based Learning
4. Clinical Practice
5. Exercises

ORTHODONTICS
275 Hours

Term outcomes:

At the end of the first term the final year BDS student should be able to:

1. Understand orthodontic terminologies.

2. Understand and describe all the branches of orthodontics.

3. Identify orthodontic treatment need by using IOTN

4. Identify and describe different growth centers and sites.

5. Understands craniofacial growth theories.

6. Evaluate growth.

7. Understands craniofacial growth changes with age and its clinical relevance.

8. Understand how the dentition develops from birth till adulthood.

9. Describe the normal features of occlusion in primary and permanent dentition.

10. Identify and classify malocclusion.

11. Record appropriate and relevant history from the patient.

12. Perform intra and extra oral examination.

13. Communicate the need of diagnostic records to patient and peers.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. PBLs

Operative Dentistry & Endodontics including Pediatric dentistry
300 Hours

Course Content

Operative Dentistry

1. Infection Control
2. History taking & clinical examination
3. Cariology
4. Clinical aspects of Dental Materials (Amalgam, Composite & hybrids, GIC & hybrids, Liners & Bases)
5. Concepts of adhesion to enamel & dentin
6. Instruments & equipment for tooth preparation
7. Tooth Preparation for direct restorations
8. Complex Amalgam Restorations

Endodontics

1. Discoloration of teeth & Management
2. Diseases of pulp & periradicular tissues
3. Vital & Non vital pulp therapies
4. Traumatic Injuries to permanent teeth
5. Selection of cases for endodontic treatment

6. Endodontic Instruments
7. Morphology of pulp chamber & access cavity preparation
8. Preparation of radicular space
9. Disinfection of root canal space
10. Obturation
11. Procedural errors in endodontics
12. Surgical Endodontics
13. Endodontic-periodontic interrelationship
14. Restoration of endodontically treated teeth

Fixed Prosthodontics

1. Treatment planning for indirect restorations
2. Principles of tooth preparation for indirect restorations
3. Tooth preparation for indirect restorations
4. Veneers, Inlays & Onlays
5. Minimal preparation bridges
6. Shade matching
7. Tissue management & impression making

Pediatric Dentistry

1. Behavior Management
2. Early childhood caries
3. Pediatric Endodontics
4. Traumatic Injuries to primary teeth
5. Space Management
6. Dental anomalies

Term outcomes:

At the end of first term, the students should be able to demonstrate an ability to

1. Identify the scope of and sub specialties of operative dentistry
2. Establish diagnosis of diseases of the pulp and periradicular tissues
3. Plan management of diseases of the pulp and periradicular tissues
4. Apply the protocol of infection control in clinical setting
5. Describe different behavior management strategies used in pediatric patients
6. Describe pathophysiology of dental caries
7. Plan management of dental caries and its consequences
8. Apply concepts of adhesion to enamel and dentin for composite restorations

Teaching Methodologies

- Lectures
- Case based discussions
- Problem based learning
- Demonstrations

Exam Term I

Term Two

ORAL & MAXILLOFACIAL SURGERY
275 Hours

Term outcomes:

At the end of second term the final year BDS student should be able to:

1. Perform simple dental extractions safely under supervision.
2. Modify the treatment of dental extraction in medically compromised patients.
3. Handle and treat most common complications of simple dental extraction.
4. Exercise different suturing techniques used in OMFS on typodonts.
5. Describe different treatment options for orofacial infections.
6. Describe and diagnose different conditions and lesions associated with salivary glands.
7. Diagnose and Identify dento-facial trauma.
8. Manage the medical emergencies occurring in dental office under supervision.
9. Describe different conditions associated with temporo-mandibular joint
10. Describe different conditions associated with maxillary sinus.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. Exercises
5. PBLs

PROSTHODONTICS

275 Hours

Removable Partial Denture, Allied topics of Complete Denture

Term outcomes:

At the end of second term the final year BDS student should be able to:

1. Describe problems associated with single dentures and explain their solution
2. Describe replacement dentures
3. Describe speech considerations with complete dentures
4. Describe component parts of cast partial dentures
5. Describe the biomechanics of cast partial dentures
6. Describe principles of cast partial denture design
7. Survey a cast for designing partial dentures
8. Design cast partial dentures for given cases
9. Describe component parts of cast partial dentures
10. Describe the support problem in distal extension bases
11. Describe various impression techniques for partially dentate patients
12. Make prosthodontic treatment plan for a geriatric patient
13. Make treatment plan for a medically compromised patient (diabetic)

Teaching Methodology)

1. Interactive Lectures
2. Clinical and laboratory Demonstrations
3. Small group discussions, Case based Learning
4. Clinical Practice
5. Exercises

ORTHODONTICS
275 Hours

Term outcomes:

At the end of second term the final year BDS student should be able to:

1. Advise and collect and evaluate all diagnostic aids for an orthodontic patient.
2. Understand causes of malocclusion.
3. Describe the phenomenon of orthodontic tooth movement.
4. Understanding of factors responsible to effect orthodontic tooth movement.
5. Use wires to bend loops and clasps for removable appliances.
6. Classify orthodontic wires and know their properties for clinical application.
7. Understand and classify anchorage.
8. Identify common anchorage devices and appliances used for anchorage.
9. Construct and manage a removable appliance for retention, diastema closure, space closure of anterior teeth, slow expansion, retroclining and proclining anterior teeth.
10. Understands and describes the concept of functional and orthopaedic treatment need.
11. Understands the way these appliances work.

Teaching Methodologies:

6. Lectures
7. Clinical demonstrations and small group clinical discussions
8. Clinical Practice
9. Exercises
10. PBLs

Operative Dentistry & Endodontics including Pediatric dentistry
300 Hours

Term outcomes:

At the end of second term, the students should be able to demonstrate an ability to:

1. Establish diagnosis of traumatic injuries to teeth and supporting structures
2. Plan management of traumatic injuries to teeth and supporting structures
3. Classify discolorations of teeth
4. Plan management for a patient with discolored teeth
5. Describe principles of access cavity preparation
6. Compare different techniques of cleaning & shaping
7. Describe irrigants and antiseptics used in root canal treatment
8. Compare properties of intracanal medicaments
9. Compare different obturation techniques
10. Identify causes of failures in root canal treatment
11. Describe various techniques used in surgical endodontic treatment
12. Distinguish between different endodontic periodontal lesions

Teaching Methodologies

- Lectures
- Problem based learning
- Demonstrations

Exam Term II

Term Three

ORAL & MAXILLOFACIAL SURGERY
275 Hours

Term outcomes:

At the end of third term the final year BDS student should be able to:

1. Perform simple and complicated dental extractions safely.
2. Handle complications associated with exodontia.
3. Describe the different pre-malignant and malignant conditions occurring in orofacial region.
4. Describe the different Developmental Anomalies/Syndrome and treatment options for that.
5. Diagnose the different pre-prosthetic conditions which need corrections surgically.
6. Describe the basics of dental Implantology.
7. Practice suturing on a extraction wound under supervision.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. Exercises
5. PBLs

PROSTHODONTICS

275 Hours

Fixed Prosthodontics, Implant supported, Maxillofacial prosthodontics and TMDs

Term outcomes:

At the end of third term the final year BDS student should be able to:

1. Evaluate a dental patient and make prosthetic treatment plan for simple prosthesis
2. Enlist and explain types of crowns and bridges
3. Enlist and describe Principles of tooth preparation
4. Enlist and explain the criteria of abutment selection
5. Describe biomechanical consideration for bridge design
6. Give steps of shade selection and select shade with manual shade guides
7. Highlight esthetic considerations for fixed dental prosthesis
8. Enlist and describe the clinical and laboratory procedures for fabrication of temporary crowns and FDP
9. Describe material used in Fixed prosthodontics including luting cements
10. Write steps of trial evaluation and cementation of FDP
11. Give post cementation care instructions
12. Enlist and classify post-operative care and complications of FDP
13. Describe osseointegration classify implants,
14. Describe implant supported prosthesis
15. Classify various types of implant supported prosthesis
16. Give indications, contraindications, advantages disadvantages of implant supported prosthesis
17. Classify acquired and congenital maxillofacial defects
18. Classify intra oral and extra oral maxillofacial prostheses
19. Classify Temporomandibular disorders and enlist their treatment options

Teaching Methodology

1. Lectures
2. Demonstrations
3. Small group discussions
4. Clinical Practice
5. Exercises
6. Workshop

ORTHODONTICS
275 Hours

Term outcomes:

At the end of third term the final year BDS student should be able to:

1. Formulate a problem list and effectively diagnose an orthodontic patient.
2. Identifies fixed appliances.
3. Demonstrate banding, bracket repair, wire removal and insertion.
4. Understand treatment need and planning of various skeletal and dental malocclusions, including birth defects, syndromes and asymmetries with appropriate referral.
5. Understand side effects of orthodontic treatment.
6. Perform orthodontic first aid.
7. Understands causes of relapse.
8. Identify retainers and classify retention protocols.
9. Construct and manage a removable Hawley retainer.
10. Communicate diagnosis to the patient.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. Exercises
5. PBLs

Operative Dentistry & Endodontics Including Pediatric dentistry 300 Hours

Term outcomes:

At the end of third term, the students should be able to demonstrate an ability to

1. Plan management for missing teeth
2. Describe principles of tooth preparation for indirect restorations
3. Execute steps in tooth preparation for full coverage restorations
4. Execute steps in impression making
5. Compare different pontic designs
6. Classify minimal preparation bridges
7. Describe different methods for restoration of endodontically treated tooth
8. Classify space maintainers
9. Describe different methods for achieving retention in complex amalgam restorations
10. Describe principles of tooth preparation for direct restorations

Teaching Methodologies

1. Lectures
2. Problem based learning
3. Demonstrations

Exam Term III

Table of Specifications

ORAL & MAXILLOFACIAL SURGERY
275 Hours

Quota Requirement for Clinical Training

Total Credits Required 250

Task	Credits	Mandatory Credits
EXTRACTIONS		
Extraction under local Anesthesia (Operator)	1	170
Surgical Extraction under local Anesthesia (Operator)	2	
Surgical Removal of Impacted Teeth (Assistance)	2	30
Dental Implants Procedures (Assistance)	2	
Other Minor Surgical Procedures (Assistance)	2	
Major Surgical Procedures under General Anesthesia (Assistance)	5	
EXERCISES		
Incisions & Flaps	10	10
Suturing	10	10
Diagnosis and assessment of mandibular third molar	10	10
Maxillo-Mandibular (IMF) fixation exercise	10	10
BLS	10	10

Course Description:

Instructions and supervised activities are distributed over two years (Third Year & Final Year BDS) of academic period.

TOS ID	Title	Knowledge	Skill	Attitude	MOA	%	MCQs	OSCE
1.	Principles of surgery				**MCQs, OSCE**	**18**	**15**	**02**
2.	Local anesthesia				**MCQs, OSCE, Practical**	**11**	**08**	**02**
3.	Principles of exodontia				**MCQs, OSCE, Practical**	**22**	**18**	
4.	Preprosthetic and implant Surgery				**MCQs, OSCE**	**05**	**04**	**01**
5.	Infections				**MCQs, OSCE**	**05**	**04**	**02**
6.	Management of oral pathologic lesions				**MCQs, OSCE**	**09**	**07**	
7.	Oral and maxillofacial trauma				**MCQs, OSCE**	**12**	**10**	**02**
8.	Dentofacial deformities				**MCQs, OSCE**	**05**	**04**	**01**
9.	Temporomandibular and other facial pain disorders				**MCQs, OSCE**	**10**	**08**	
10.	Management of hospital patients				**MCQs, OSCE**	**03**	**02**	
Total						**100**	**80**	**10**

Learning Objectives and Contents:

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
1.	Principles of surgery	Preoperative Health Status Evaluation	• Take record and interpret an accurate history from patients of any age and communicate effectively • Work effectively with other health care professionals • Make a differential diagnosis • Perform relevant diagnostic tests & carry out investigations to establish definitive diagnosis • Devise strategies and plans based on the likely prognosis and outcomes of the various treatment options, relating this to prognosis without treatment and establishing a resultant priority and sequence of treatment	18
		Prevention and Management of Medical Emergencies	• Evaluate and identify the medical conditions patients are suffering through history, examination and diagnostics • Modify dental treatment plan according to medical conditions • Manage the medical emergencies in dental office • Work effectively with other health care professionals	
		Principles of Surgery	• Understand and apply basics principles in clinical practice	
		Wound Repair	• Identify different stages of healing and correlate clinically on actual patients	
		Infection Control in Surgical Practice	• Practice aseptic techniques while doing dental procedures	

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
2.	Local Anesthesia	Types and composition of local anesthesia	• Identify and describe the different type of local anaesthetics agents working and composition • understand how local anaesthetics work • know the potency, speed of onset and duration of action of common agents	**11**
		Armamentarium of local anesthesia	• Identify the armamentarium required for effective delivery of local anesthesia in dentistry	
		Techniques of regional anesthesia in dentistry	• know the safe dosages of common local anaesthetic drugs • Administer local anesthesia in maxilla and mandibular regions safely and effectively by different techniques	
		Complications of local anesthesia	• Describe and identify the different reasons for failure of anaesthesia • identify and manage common complications that can occur	
3.	Principles of exodontia	Instrumentation for basic oral surgery	• Identify and describe the use of different instruments used during basic surgical procedure in dentistry	**22**
		Principles of routine exodontia	• Devise a management plan tailored to patient's needs • Demonstrate an understanding of various aspects of dental extractions • Understand the indications and contraindications for removal of a teeth • Use instruments safely and appropriately • Demonstrate the techniques available for extraction • Carry out steps of procedure safely and correctly • Resist pressure from patient or caretaker to provide inappropriate treatment e.g. extraction of tooth that does not warrant such	

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
			• Offer care, behave appropriately when dealing with a difficult patient	
		Principles of more complex exodontia	• Demonstrate the various techniques used to remove teeth surgically • Remove a fractured tooth surgically • Practice the aseptic techniques and apply basic surgical principles during teeth removal • Offer care, behave appropriately when dealing with a difficult patient	
		Principles of management of impacted teeth	• understand the terms impacted and ectopic and know which teeth are likely to be affected • Examine and assess patients with impacted/ectopic teeth and classify the impacted teeth according to severity of difficulty • know the surgical techniques, their application and complications • Understand the treatment options and referral protocols	
		Postoperative patient management	• Communicate and demonstrate the postoperative instructions properly	
		Prevention and management of extraction complications	• Identify the patients at the risk of developing complications after surgical procedures (simple or complicated exodontia) • Demonstrate the understanding of potential complications following extraction and their treatment. • Manage effectively common postoperative complications (Dry socket, Oro antral fistula, wound dehiscence)	

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
4.	Preprosthetic and implant Surgery	Preprosthetic surgery,	• Understand the surgical procedures that can be used to prepare for retentive conventional dentures.	**05**
		Implant treatment: basic concepts and techniques	• Know the indications for dental implants • Assess the suitability of a patient for implants • Understand implant techniques using bone and materials • Understand the timing of implants in relation to tooth extractions	
		Implant treatment: advanced concepts and complex cases,	• Understand the treatment options in complex cases • understand the referral protocols	
5.	Infections • Diseases of the Maxillary Sinus • Salivary gland	Principles of Management and Prevention of Odontogenic Infections	• Demonstrate the understanding of diagnosis, investigation and treatment options in odontogenic Infections	**05**
		Complex Odontogenic Infections	• Know the aetiology, investigations and treatment options • Demonstrate the referral protocols	
		Principles of Endodontic Surgery	• Demonstrate the understanding of the endodontic surgery	
		Odontogenic Diseases of the Maxillary Sinus	• Demonstrate the understanding of different treatment options for the management of oroantral communication • Demonstrate the knowledge of different diseases of maxillary sinus	
		Diagnosis and Management of Salivary Gland Disorders	• Demonstrate the knowledge of aetiology, investigations and treatment options of different salivary gland disorders	

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
6.	Dentofacial deformities	Correction of Dentofacial Deformities	• Demonstrate the knowledge of different dentofacial deformities and methods to correct these deformities	**09**
		Facial Cosmetic Surgery	• Demonstrate the knowledge of different treatment options for facial cosmetic surgery	
		Management of Patients with Orofacial Clefts,	• Demonstrate the knowledge of different orofacial clefts and their treatment options	
		Surgical Reconstruction of Defects of the Jaws	• Demonstrate the knowledge of different reconstruction techniques for the defects of the jaws	
7.	Management of oral pathologic lesions	Principles of Differential Diagnosis and Biopsy	• Demonstrate the understanding of basic principles of different biopsy techniques	**12**
		Surgical Management of Oral Pathologic Lesions	• Demonstrate the understanding of etiology, investigations and treatment options of different cystic lesions of orofacial region • Demonstrate the understanding of aetiology, investigations and treatment options of common pathologic lesions	
		Management of the Patient Undergoing Radiotherapy or Chemotherapy	• Demonstrate the knowledge of modifications in dental treatment plan of patients undergoing radio or chemotherapy • Demonstrate the referral protocols	

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
8.	Oral and maxillofacial trauma	Soft Tissue and Dentoalveolar Injuries,	• Demonstrate the knowledge, investigations and different treatment options of the soft tissue and dentoalveolar injuries	**05**
		Management of Facial Fractures	• Demonstrate the knowledge of aetiology, pattern and classification of different facial fractures • Demonstrate the knowledge of basic treatment options for different facial fractures • Demonstrate the basic technique of intermaxillary fixation (IMF) for the treatment of facial fractures	
9.	Temporomandibular and other facial pain disorders	Facial Neuropathology	• Demonstrate the knowledge of aetiology, investigations and treatment options of the facial neuropathy	**10**
		Management of Temporomandibular Disorders	• Demonstrate the knowledge and understanding of aetiology, investigations and treatment options of the TMJ disorder	
10.	Management of hospital patients	Management of Hospitalized Patients,	• Demonstrate the knowledge of different management options of the patients admitted in hospital	**03**

PROSTHODONTICS
275 Hours

Overall Weightage for Professional Exam

The Theoretical and practical/clinical content of clinical Prosthodontics is spread over third and final year BDS.

Topics	Weightage	MCQ	Practical viva weightage
Treatment planning for a prosthodontics patient	5	4	15
Removable Prosthodontics Partial and complete dentures	37	30	45
Fixed Prosthodontics	28	22	20
Implant related prosthodontics	10	8	10
Occlusion and TMD Maxillofacial Prosthodontics	10	8	5
Geriatric dentistry	10	8	5
	100	80	100

Clinical Assignments for Final Year*

Total Credits Required 8

#	No.	TASK	CREDITS
1.	**02**	Patient Evaluation Planning and Complete denture fabrication	02
2.	**04**	Cast Partial Denture surveying and designing on models and Design Sheets	02
3.	**02**	Crown Preparations on extracted or plastic teeth • **02 Porcelain Fused to Metal** • **01 All Ceramic** • **01 All metal**	02
4.	**04**	Patient Evaluation and Treatment Planning	02
		Total	08

***Clinical requirements for Third Year BDS are mentioned in the third year Curriculum of Shaheed Zulfiqar Ali Bhutto Medical University.**

Learning Objectives and Contents:

Sr. no	Content	Learning outcome	MIT	Learning domain			Assessment tool	Weightage
		TREATMENT PLANNING IN PROSTHODONTICS		C	P	A		05
1.	**Treatment Planning in Prosthodontics**	Competent in taking pertinent history for a prosthodontics patient	IL, SGD, D, C	C2			MCQ, OSCE	5
		• Competent in ordering relevant investigations for a patient with missing teeth and interpret them • Competent in clinical examination including physical, extra-oral and intraoral examination of soft and hard tissues of oral cavity, and occlusion for a prosthodontics patient • Develop a diagnosis and make problem list for the patient • Competent in making treatment plan for simple removable prosthesis for partially edentulous and completely edentulous patient • Competent in making treatment plant for simple FPD and single implant crown • Competent in presenting treatment plan, counselling and reaching consensus with the patient	IL, SGD, D, C IL, SGD, D, C	C2 C2	 ✓	 ✓	MCQ, OSCE MCQ, OSCE	
	REMOVABLE PROSTHODONTICS							**37**
	Complete dentures							20
1.	**Preliminary**	Explain the sequel caused by wearing	IL, SGD, C	C2			MCQ, VIVA,	3

		removable partial and complete denture					OSCE	
		Explain pre-prosthetic mouth preparation	IL. PBL/TBL, SGD	C2			MCQ, VIVA, OSCE	
2.	**Impression for edentulous mouth**	Describe the term “Denture bearing area” Discuss the features of primary and secondary stress-bearing areas, peripheral areas and the relief areas for maxillary and mandibular denture bearing area Explain various impression theories and techniques used in edentulous patients Define and describe “Neutral zone” Enlist the materials used Outline the various clinical and laboratory steps involved	IL, SGD, D, V, C	C3			MCQ, VIVA, OSCE	3
3.	**Maxillomandibular jaw Relations**	Explain Maxillomandibular relations Define orientation, vertical and horizontal relations’	IL, PBL/TBL, V	C2			MCQ, VIVA, OSCE	3
		Fabrication of record bases and occlusal rims	IL, D, C	C2			OSCE	
4.	**Tooth selection, arrangement and denture trial**	Selection of artificial teeth Arrangement of artificial teeth	IL, D, C	C3			MCQ, VIVA, OSCE	
		Outline the verifications made by the dentist in trial dentures	IL, V, SGD, D	C2				

		Identify and suggest corrections for common errors in trial dentures					MCQ, VIVA, OSCE	
5.	**Insertion of a complete denture**	Outline the sequence of insertion of a complete denture State appropriate instructions to the patient Assess the denture for processing errors, and errors in previous clinical steps of denture fabrication. Evaluate the retention, stability and support. Evaluate the aesthetics Describe speech considerations with complete dentures	IL, D, C	C3			MCQ, VIVA, OSCE	2
6.	**Post-insertion complaints and management**	Categorize the post-insertion complaints Recognize the errors in stability retention and support of denture base, tooth selection and arrangement, jaw relations and occlusion, tongue space and food under dentures and correct it	IL, D, C	C2			MCQ, OSCE	3
7.	**CD fabrication**	Treat simple edentulous cases with conventional complete dentures	IL, D, C, Lab	C3			VIVA, LC OSCE	

8.	**Single complete dentures**	Describe problems associated with single dentures and their solution Enumerate the types Recall the techniques for occlusal plane correction Define and describe the term “Combination syndrome” Summarize the strategies for preventing this occurrence	IL, PBL/TBL, V	C2			MCQ	2
9.	**Replacement dentures copy denture, immediate denture, overdenture**	Define and describe copy denture, immediate denture, overdentures Enlist their indications and contraindications Discuss their advantages and disadvantages Propose a treatment plan for a given case Recall an outline of the procedures involved Plan and perform the required model surgery for immediate dentures Outline specific post-insertion instructions to the patient Plan the follow-up appointments	IL, D, L	C2			MCQ, VIVA, OSCE	2
10.	**Prolonging useful life of complete denture**	Define and describe relining, rebasing and repair of existing dentures Demonstrate steps of repair of damaged acrylic dentures	IL, SGD, Lab	C2			MCQ, OSCE	2
	Removable Partial Denture			C	P	A		17
11.	**Introduction to Prosthodontics***	Define basic terminology of prosthodontics Define various types of prosthesis for a partially dentate patient	IL, SGD	C2			MCQ, Viva	1

		Describe instruments used in partial denture fabrication	IL, SGD,	C3			MCQ, OSCE	
12.	**Impressions for partially dentate patients***	Describe pre-requisites of impressions for partially dentate patients Describe various types of impressions Evaluate an impression for acceptance	D, C, SGD, PBL/TBL	C2			MCQ, , OSCE, Short case	2
13.	**Cast partial dentures***	Identify and describe component parts of cast partial dentures Recall laboratory procedures for cast partial dentures Describe the support problem associated with distal extension bases and enlist solutions for compensation Describe pre-prosthetic mouth preparation and abutment preparation Identify various parts of a surveyor Enlist uses of surveyors Survey a cast for cast partial denture design Design cast partial denture on a given case	IL, D, SGD, PBL/TBL	C2			MCQ,	3
			IL	C2			MCQ	
			IL, WS, D	C2			MCQ, OSCE	2
			IL, WS, D	C3			MCQ OSCE	2
			IL, SGD	C3			MCQ, Viva	3
			IL, D, Skill Lab	C2			MCQ, OSCE Viva	

		Explain biomechanics involved in cast partial denture treatment Describe trial and insertion of a cast partial dentures	IL, V	C2			MCQ	2
14.	**Other treatment options for partially dentate patient**	Give outline of role of fixed prosthesis in RPD Describe partial immediate and over dentures	IL, V	C2			MCQ	2
	***Partial denture topics covered in 3rd and final Year**							
	Geriatric dentistry							10
15.	**Geriatric dentistry**	Demonstrate an understanding to make prosthodontic treatment plan for a medically compromised patient Identify the risk factors and signs and symptoms of malnutrition and dehydration in elderly Identify common dental problems in elderly Make a prosthodontic management plan for a geriatric patient	IL, SGD	C2			MCQ	10
	Occlusion, TMD Maxillofacial Prosthodontics							10

16.	**Occlusion and articulators**	Define, classify, and illustrate various articulators Recall the purpose and uses of articulator Recall the advantages and limitations of this instrument Classify articulators based on instrument function and adjustability Program a semi-adjustable articulator Describe basic terms of occlusion Differentiate between natural and complete denture occlusion Describe occlusal schemes for partially dentate and edentulous patients Define pathological occlusion Describe determinants of occlusion	IL, SGD, D	C2			MCQ OSCE	6
17.	**Temporomandibular Disorders**	Recall etiology of TMD Classify splints Enlist treatment options for TMD	IL,	C1			MCQ	2

18.	**Maxillofacial prosthodontics**	Define classify acquired and congenital maxillofacial defects Define and classify intra oral and extra oral maxillofacial prostheses Understand the timing of maxillofacial prosthodontic work	IL,	C1			MCQ	2
	Fixed Prosthodontics							27
19.	**Treatment planning and designing fixed dental prosthesis**	Enlist and explain the criteria of abutment selection Describe biomechanical consideration for bridge design Outline the sequence of providing a given treatment	IL, SGD, PBL/TBl	C2			MCQ, OSCE, VIVA	4
20.	**Types of fixed prosthesis**	Recognize and describe various types of fixed prosthesis Give indications, contraindication, advantage and disadvantages of fixed prosthesis Classify and describe the components of a conventional bridge. Outline the requirements and indications of various pontics, retainers and connectors	IL, PBL/TBl,	C2			MCQ, OSCE, VIVA	3

21.	**Tooth preparations**	Describe Principles of tooth preparation	IL, SGD	C2			MCQ, Viva	6
		Demonstrate the ability to prepare a tooth for a. Porcelain Fused to Metal crown b. All metal crown and All ceramic crown	IL, WS, Skill Lab	C2			MCQ, Viva, OSCE, P	
22.	**Impressions**	Select suitable impression material for a fixed prosthesis case Describe tissue management techniques Select appropriate impression technique for a given case	IL, SGD	C2			MCQ, VIVA	3
23.	**Aesthetics**	Highlight aesthetic considerations for fixed dental prosthesis Select appropriate shade for a patient	IL, D	C2			MCQ, OSCE	3
24.	**Temporization**	Describe the procedures for fabrication of direct and indirect temporary crowns and FDP	IL, SGD	C2			MCQ,	2
25.	**Material Science**	Describe material used in Fixed prosthodontics	IL	C2			MCQ, VIVA	3
26.	**Trial and Cementation and post cementation care**	Write steps of trial evaluation and cementation of FDP Select appropriate cement for a given case Give post-cementation care instructions to patient	IL, SGD	C2			MCQ, OSCE	3

		Classify and describe complications of FDP						
	Implant Prosthodontics							10
27.	**Implant Prosthodontics**	Describe osseointegration	IL	C2			MCQ	4
		Classify implants	IL	C1			MCQ	
		Describe implant supported prosthesis	IL	C2			MCQ	
		Classify various types of implants supported prosthesis	IL	C2			MCQ	
		Give indications, contraindications, advantages disadvantages of implant supported prosthesis	IL	C2			MCQ	2
		Recall steps of fabrication of implant prosthesis	IL, SGD	C1			MCQ	2
		Demonstrate steps of planning a single implant supported crown on posterior teeth	IL SGD, Skill lab	C2			MCQ, OSCE	
		Describe role of implants in treatment of partially dentate patient with RPDs	IL	C1			MCQ	2

Abbreviations used in the table:

Mode of information transfer

IL	Interactive Lecture
SGD	Small Group Discussion
WS	Workshop
C	Clinical practice
D	Demonstration
Lab	Laboratory work
SL	Skill Lab
V	Video

Assessment

MCQ	Multiple Choice Questions
OSCE	Objective structured Clinical examination
Viva	Viva Voce
LC	Long case
P	Practical exam

Table of specifications for Final Prof. Practical Prosthodontics

Serial no	Learning outcome	Teaching methodology	Learning domain with level			Weightage	Assessment tool
	At the end of one year final year BDS student should be able to;		**C**	**P**	**A**		
1.	Demonstrate knowledge of treating an edentulous patient with conventional complete dentures	IL, SGD, D, C	C3	✓		7	Viva OSCE
2.	Make impressions for a prosthodontic patient	IL, D, C, V	C3	✓	✓	20	Long case Viva
3.	Arrange artificial teeth for a complete denture	IL, D, Lab	C3	✓	✓	20	Lab practical
4.	Evaluate a prosthodontics patient	D, C, SGD				5	OSCE
5.	Make treatment plan for a simple prosthodontics patient	IL, D, C, SGD, PBL/TBL	C3			5	OSCE, Viva
6.	Design acrylic dentures	D, Lab	C3	✓		3	OSCE
7.	Design cast partial denture	D, WS	C3	✓		3	OSCE
8.	Describe problems and management of geriatric patient	IL, PBL/TBL	C2			2	Viva
9.	Describe various replacement dentures and denture servicing	IL, PBL/TBL, V	C2			3	Viva
10.	Demonstrate understanding of treating a partially dentate patient with removable partial dentures	IL, PBL/TBL, SGD,	C2			11	Viva OSCE
11.	Demonstrate understanding of treating a partially dentate patient with Fixed partial dentures	IL, PBL/TBL, SGD, V	C2			11	Viva OSCE
12.	Describe basics of maxillofacial defects and prosthesis	IL, PBL/TBL	C2			2	Viva
13.	Demonstrate basic understanding of Implant supported prosthesis	IL, PBL/TBL	C2			3	Viva
14.	Describe basics of occlusion	IL, V, PBL/TBL	C2	`		5	Viva
						100	

ORTHODONTICS
275 Hours

Quota Requirement for Clinical Training
Total Credits Required

Task	Mandatory Quota
Orthodontic diagnostic evaluation	
Recording history, clinical examination & photo evaluation	5
OPG evaluation	5
Cephalometric evaluation	5
Cast analysis (adult and mixed dentition)	5
Growth evaluation	5
Complete case presentation with formulation of problem list	1
EXERCISES	
Impressions and bite record	1
Seperator placement and band cementation	1
Bracket repairs, wire change and orthodontic first aid	1
Wire bending (Adams clasp, labial bow, finger spring, buccal canine retractor, Z-spring)	5 each
Construction of removable appliances	2

Course Description:

Instructions and supervised activities are distributed over one year with 9 weeks of mandatory clinical rotation (Final Year BDS) of academic period.

TOS ID	Title	Knowledge	Skill	Attitude	MOA	%	MCQs	OSCE
1.	Introduction				**MCQs, OSCE**	**5**	**04**	**01**
2.	Growth & development				**MCQs, OSCE, Practical**	**20**	**16**	**06**
3.	Orthodontic diagnosis				**MCQs, OSCE, Practical**	**25**	**20**	
4.	Biomechanics				**MCQs, OSCE**	**20**	**16**	**01**
5.	Appliances				**MCQs, OSCE, Practical**	**15**	**12**	**04**
6.	Management of orthodontic patients				**MCQs, OSCE**	**15**	**12**	
Total						**100**	**80**	**12**

Learning Objectives and Contents:

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
11.	Introduction	Orthodontic terminologies	• Understand orthodontic terminologies.	**5**
		Branches of orthodontics	• Understand and describe all the branches of orthodontics.	
		Need of orthodontic treatment	• Identify orthodontic treatment need by using IOTN	
12.	Growth & development	Basic concept of craniofacial growth	• Identify and describe different growth centres and sites. • Understands craniofacial growth theories. • Evaluate growth. • Understands craniofacial growth changes with age and its clinical relevance.	**20**
		Development of dentition	• Understand how the dentition develops from birth till adulthood.	
		Occlusion & malocclusion	• Describe the normal features of occlusion in primary and permanent dentition. • Identify and classify malocclusion.	
		Aetiology of malocclusion	• Understand causes of malocclusion.	

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
13.	Orthodontic diagnosis	History taking & examination	• Record appropriate and relevant history from the patient. • Perform intra and extra oral examination.	**25**
		Orthodontic diagnostic aids	• Advise and collect and evaluate all diagnostic aids for an orthodontic patient. • Formulate a problem list and effectively diagnose an orthodontic patient. • Communicate the need of diagnostic records to patient and peers. • Communicate diagnosis to the patient.	
14.	Biomechanics	Bone metabolism & concept of orthodontic tooth movement	• Describe the phenomenon of orthodontic tooth movement. • Understanding of factors responsible to effect orthodontic tooth movement.	**20**
		Types & properties of orthodontic wires	• Use wires to bend loops and clasps for removable appliances. • Classify orthodontic wires and know their properties for clinical application.	
		Anchorage	• Understand and classify anchorage. • Identify common anchorage devices and appliances used for anchorage.	

S/No	Title	Detail of Title	Learning Objectives At the end of final year student should be able to	Weightage %
15.	Appliances	Removable	• Construct and manage a removable appliance for retention, diastema closure, space closure of anterior teeth, slow expansion, Retroclining and proclining anterior teeth.	**15**
		Functional	• Understands and describes the concept of functional and orthopaedic treatment need. • Understands the way these appliances work.	
		Fixed	• Identifies fixed appliances. • Demonstrate banding, bracket repair, wire removal and insertion.	
16.	Management of orthodontic patients	Preventive and interceptive orthodontics	• Perform preventive and interceptive orthodontic procedures. • Perform space management.	**15**
		Corrective orthodontics	• Understand treatment need and planning of various skeletal and dental malocclusions, with appropriate referral. • Understand side effects of orthodontic treatment. • Perform orthodontic first aid.	
		Surgical orthodontics/development defects/asymmetries	• Understand treatment need and appropriate referral.	
		Retention & relapse	• Understands causes of relapse. • Identify retainers and classify retention protocols. • Construct and manage a removable Hawley retainer.	

Operative Dentistry & Endodontics
Including Pediatric dentistry
300 Hours

Quota Requirement for Clinical Training

Total Credits Required

Sr. No	Description	Quota of Work (Phantom Head) TO BE COMPLETED IN THIRD YEAR	Quota of Work (On Patients) TO BE COMPLETED IN FINAL YEAR	Total
1	Class I Amalgam Restorations	06	15	21
2	Class I Compound Amalgam Restorations	04	04	08
3	Class II Amalgam Restorations	10	15	25
4	Class III Composite Restorations	08	07	15
5	Class IV Composite Restorations	06	-	06
6	Class V Restorations	06	04	10
7	Endodontic Treatment (Single Rooted Tooth)	01	02	03
9	Restorations with Rubber Dam Placement	05	Class I= 03 Class II= 02	
		GRANT TOTAL		88

Learning Objectives and Contents:

Serial No	Content	Learning outcome	MIT	Learning domain			Assessment tool	Weightage	
				C	P	A		Theory	Practical
Operative Dentistry								**30%**	
1.	Infection control	Know different methods of infection control Apply the protocol of infection control in clinical setting	IL, SGD, PBL/TBL, C	C1, C2, C3	√	√	MCQ, Long Case OSCE	5%	
2.	History taking & clinical examination	Execute steps of history taking & clinical examination to establish diagnosis & formulate treatment plan	SGD, C	C3	√	√	Mini-CEX, Long Case, OSCE		
3.	Cariology	Understand pathophysiology of dental caries Plan management of a patient with dental caries	IL, SGD, CBD, PBL/TBL	C2, C3	√	√	MCQ, OSCE	7%	

		according to caries risk assessment							
4.	Clinical aspects of dental Materials	Corelate mechanical properties of dental materials with their clinical application	SGD, PBL/TBL, C	C2, C3	√	√	MCQ, Long Case OSCE	10%	
5.	Concepts of adhesion to enamel & dentin	Understand the mechanism of adhesion to enamel & dentin Apply concepts of adhesion to enamel and dentin for composite restorations	IL, PBL/TBL, C	C2, C3	√	√	MCQ, Long Case OSCE	3%	
6.	Instruments & equipment for tooth preparation	Understand the uses, classification, nomenclature and characteristics of hand & rotary instruments	SGD, C	C1, C2, C3	√	√	OSCE		
7.	Tooth Preparation for direct restorations	Apply the principles of tooth preparation for direct restorations Execute direct restorations	IL, SGD, PBL/TBL, C	C2, C3	√	√	DOPS, Long Case		
8.	Complex Amalgam	Know different methods for achieving retention in	IL, SGD, PBL/TBL, C	C2, C3	√	√	MCQ, OSCE	5%	

	Restorations	complex amalgam restorations Plan management of complex amalgam restorations							
Endodontics								**35%**	
9.	Discoloration of teeth & Management	Classify discolorations of teeth Plan management for a patient with discolored teeth	IL, CBD, PBL/TBL	C2, C3	-	-	MCQ	3%	
10.	Diseases of pulp & periradicular tissues	Establish diagnosis of diseases of the pulp and periradicular tissues	IL, CBD, SGD, PBL/TBL, C	C3	√	√	MCQ, Long Case, OSCE	5%	
11.	Vital & Non vital pulp therapies	Plan management for vital & non vital teeth Execute management for deep carious lesions	IL, CBD, SGD, PBL/TBL, C	C3	√	√	MCQ, Long Case OSCE	5%	
12.	Traumatic Injuries to permanent teeth	Classify traumatic injuries to permanent teeth Establish diagnosis of traumatic injuries to teeth and supporting structures	IL, CBD, SGD, PBL/TBL	C2, C3	-	-	MCQ	5%	

		Plan management of traumatic injuries to teeth and supporting structures							
13.	Selection of cases for endodontic treatment	Understand the advantages & disadvantages of different treatment options for pulpally involved tooth Evaluate prognosis & plan management for pulpally involved tooth	IL, CBD, SGD, PBL/TBL	C2, C3	-	-	MCQ	1%	
14.	Endodontic instruments	Understand the uses, classification, nomenclature and characteristics of endodontic instruments	SGD, C	C1, C2, C3	√	√	OSCE		
15.	Morphology of pulp chamber & access cavity preparation	Understanding of the morphology of pulp chamber & importance of proper access cavity preparation	IL, SGD, PBL/TBL, C	C2, C3	√	√	DOPS,MCQ, OSCE	10%	
16.	Preparation of radicular space	Understand different techniques of cleaning & shaping	IL, SGD, PBL/TBL, C	C2, C3	√	√	DOPS,MCQ, OSCE		

		Compare different techniques of cleaning & shaping							
17.	Disinfection of root canal space	Compare properties of irrigants & antiseptics	IL, SGD, PBL/TBL, C	C2, C3	√	√	DOPS, MCQ, OSCE		
18.	Obturation	Understand different techniques of obturation Compare different obturation techniques	IL, SGD, PBL/TBL, C	C2, C3	√	√	DOPS, MCQ, OSCE		
19.	Procedural errors in endodontics	Know causes of procedural errors & their prevention & management	IL, SGD, PBL/TBL	C1, C2	-	-	MCQ	1%	
20.	Surgical Endodontics	Know the indications of different surgical techniques	IL, SGD, PBL/TBL	C1, C2	-	-	MCQ	1%	
21.	Endodontic - periodontic interrelationship	Distinguish between different endodontic periodontal lesions	IL, SGD, PBL/TBL	C2, C3	-	-	MCQ	2%	
22.	Restoration of endodontically treated teeth	Plan treatment for restoration of endodontically treated teeth	IL, SGD, PBL/TBL	C2, C3	√	√	MCQ, OSCE	2%	
Fixed Prosthodontics								**20%**	

23.	Treatment planning for indirect restorations	Know different types of indirect restorations & their indications	IL, SGD, PBL/TBL	C2, C3	√	√	MCQ, OSCE	2%	
24.	Principles of tooth preparation for indirect restorations	Understand principles of tooth preparation for indirect restorations	IL, SGD, PBL/TBL,C	C2, C3	√	√	MCQ, OSCE	3%	
25.	Tooth preparation for indirect restorations	Understand the steps for tooth preparation for indirect restorations Execute steps in tooth preparation for full coverage restorations	SGD, C	C2, C3	√	√	DOPS, MCQ, OSCE	3%	
26.	Veneers, Inlays & Onlays	Know the indications for veneers, inlays & onlays	IL, SGD, PBL/TBL	C2, C3	-	-	MCQ	2%	
27.	Minimal preparation bridges	Classify minimal preparation bridges Know the indications for minimal preparation bridges	IL, SGD, PBL/TBL	C2, C3	-	-	MCQ	2%	
28.	Shade matching	Understand the basics of shade matching & its importance	IL, SGD, PBL/TBL,C	C1, C2	-	-	MCQ	2%	

29.	Tissue management & impression making	Classify impression materials Know the indications for different impression matrials Know the different methods for tissue management during impression making Execute steps in impression making	IL, SGD, PBL/TBL,C	C2, C3	√	√	MCQ, OSCE	3%	
Pediatric Dentistry								**15%**	
30.	Behaviour Management	Know different behaviour management strategies in pediatric patients Apply different behaviour management strategies in pediatric patients	IL, SGD, PBL/TBL, C	C1, C2, C3	√	√	MCQ, OSCE	2%	
31.	Early childhood caries	Know the predisposing factors ECC Diagnose, plan & execute treatment for ECC	IL, SGD, PBL/TBL, C	C1, C2, C3	√	√	MCQ, OSCE	3%	
32.	Pediatric Endodontics	Know the indications of pulp therapies in primary	IL, SGD, PBL/TBL, C	C2, C3	√	√	MCQ, OSCE	3%	

		teeth Execute pulp therapies in primary teeth							
33.	Traumatic Injuries to primary teeth	Classify traumatic injuries to primary teeth Know the sequel of injuries to primary teeth Know the management of traumatic injuries to primary teeth	IL, SGD, PBL/TBL	C1, C2, C3	-	-	MCQ	3%	
34.	Space Management	Classify space maintainers Plan provision of space maintainers in different clinical situations	IL, SGD, PBL/TBL, C	C1, C2, C3	-	-	MCQ	2%	
35.	Dental Anomalies (number, size, shape, structure)	Identify different types of dental anomalies	IL, SGD, PBL/TBL	C1, C2	-	-	MCQ, OSCE	2%	

SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY

BDS Final Professional Examination

Internal Assessment Grid

Component of Internal Assessment (IA): 20%
Marks of Each: Theory (20) Practical (20)
Total Marks: 40

THEORY

	Term-I	Term-II	Term-III	Pre-Prof	Attitude
Internal Assessment	**4 Marks**	**4 Marks**	**4 Marks**	**6 Marks**	**2 Marks**
	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 2 Mark 61% to 70% 3 Marks 71% to 80% 4 Marks 81% and Above 6 Marks	
Total	4 marks	4 marks	4 marks	6 marks	2 marks
Grand Total	**20 Marks**				

PRACTICAL

	Term-I	Term-II	Term-III	Pre-Prof	Attitude
Internal Assessment	**4 Marks**	**4 Marks**	**4 Marks**	**6 Marks**	**2 Marks**
	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 2 Mark 61% to 70% 3 Marks 71% to 80% 4 Marks 81% and Above 6 Marks	
Total	4 marks	4 marks	4 marks	6 marks	2 marks
Grand Total	**20 Marks**				

SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY

BDS Final Professional Examination

Final Assessment Plan

THEORY			PRACTICAL EXAM		
Mode	**No**	**Marks**	**Mode**	**No**	**Marks**
MCQs	80 (1 mark each)	80 Marks	VIVA	Internal and External	30 Marks
Internal Assessment		20 Marks	Long Case/tooth setup	01	20 Marks
Total		100 Marks	OSCE	10	30 Marks
Annual Examination will be conducted by the university			Internal Assessment		20 Marks
			Total		100 Marks