LAHORE MEDICAL AND DENTAL COLLEGE

OPERATIVE DENTISTRY STUDY GUIDE

2ND, 3RD, FINAL YEAR BDS

2023

COURSE DIRECTOR:

Prof. Dr Saima Razaq Khan	BDS, FCPS	Professor & head of the Department

CONTRIBUTORS:

Dr Moeen ud Din Ahmad	BDS, MCPS	Associate Professor
Dr Anam Fayyaz	BDS, FCPS	Assistant Professor
Dr Aisha Butt	BDS, MCPS	Senior Registrar

PAEDODONTICS

Prof. Dr Omer Yousaf	BDS, FCPS	Professor

CO-CONTRIBUTORS:

Dr Nayaab Gilani	Demonstrator
Dr Maham Anjum	Demonstrator

Table of Contents

I. INTRODUCTION:

Operative Dentistry is one of the branches of dentistry that deals with the art and science of the diagnosis, prevention, treatment, and prognosis of diseases or trauma to teeth.

Restorative dentistry is the study, diagnosis and integrated management of diseases of the teeth and their supporting structures and the rehabilitation of the dentition to functional and aesthetic requirements of the individual.

Endodontics is the branch of dentistry concerning dental pulp and tissues surrounding the roots of a tooth.

Crown and Bridge is the art and science of restoring damaged teeth with cast metal, metal ceramic, all-ceramic or resin restorations and of replacing missing teeth with fixed prosthesis.

Paedodontics is the study, diagnosis and integrated management of diseases of the teeth and their supporting structures in children.

SCOPE AND SEQUENCE:

Training in Operative Dentistry starts in 2nd year of BDS. Lectures will be held once a week along with rotation of each batch in the Skills lab and students will be taught pre-clinical skills. During the course of 3rd years, lectures will be held once in a week along with 8 weeks of rotation in the department where the students will perform amalgam restorations on phantom teeth in the skills lab. Principles of tooth preparation will be taught.

During the 4th year of BDS, three lectures will be delivered weekly. Students will complete approximately 10 weeks of clinical duties in the department and will accomplish their clinical requirements. On Wednesdays the students will have endodontics and crown and bridge sessions in the skills lab and perform their required quota.

II. STUDY GUIDE OBJECTIVES:

To facilitate students of second, third and final year BDS in managing their studies by prompt information and guidance pertaining to the various aspects of Operative Dentistry course.

III. COURSE DURATION, ToS, EXAMINATION RULES AND REGULATIONS

COURSE DURATION:

2nd year BDS

- 24 weeks per academic year tentatively
- One lecture per week for 24 weeks
- Division of class into two batches for clinical rotation
- One practical class per week for each batch for approx. 6 months
- 135 hours required by UHS

	AVAILBLE	REQUIRED BY UHS
Practical	6 months duration 4 hours/week, 2 hours/batch weekly, 48 hours/ batch	-
Lectures	6 months duration Total no. of lectures: 26; 19.5 hours	-
Total	67.5 hours	135 hours

3rd year BDS

- 41 weeks per academic year tentatively
- One lecture per week for 24 weeks
- Division of class into five batches for clinical rotation of approx. 8 weeks per batch
- Three practical classes per week for each batch
- 100 hours required by UHS

	AVAILBLE	REQUIRED BY UHS
Practical	9 months duration 11.5 hours/ week, 92 hours/ batch	-
Lectures	6 months duration 19 hours	-
Total	111 hours	100 hours

FINAL YEAR BDS

- 36 weeks per academic year tentatively
- Three lectures per week for 36 weeks
- Division of class into four batches for clinical rotation of approx. 10 weeks per batch tentatively
- Five practical classes per week for each batch
- One and a half hour tutorials/interactive group discussion classes each day during the Clinical rotation

		Credit hours/Lectures
Lectures	**Faculty**	**No.**
Resto	Dr Saima	29
Endo	Dr Anam	23
C&B	Dr Moeen	22
Paeds	Dr Omer	20
		Total 94

Assessment	**Credit hours**
Class Test	08

			Rotation 1	**Rotation 2**	**Rotation 3**	**Rotation 4**	**Credit hours**
Clinical Rotation:	**Subject**	**Faculty**	**No. (days)**	**No. (days)**	**No. (days)**	**No. (days)**	
Demonstration and clinical work 10:30-12:30pm	Resto	Dr Saima	20	20	20	20	81
	Endo	Dr Anam	10	10	10	10	40.5
Tutorials: 12:30-2:00pm	C&B	Dr Moeen	10	10	10	10	40.5
	Paeds	Dr Omer	10	10	10	10	40.5
							Total 202.5

Operative credit hours:	**236 (without assessments)**
Paeds credit hours:	**60.5 (without assessments)**
Grand total Credit hours:	**296.5 + 8 Class tests = 304.5**

Required by PMC in Final year BDS (PMC 2019):	**305**
Required by PMC in Final year BDS Operative dentistry & Endodontics (PMC 2022):	**200**
Required by PMC in Final year BDS in Paediatric dentistry (PMC 2022):	**150**

Table of specifications for Operative dentistry theory & practical examination

BDS Final professional examination

Theory and Practical Examination carries 200 marks.
The examination in the subject of Operative Dentistry shall be as follows:-

I. One written paper of 90 marks in Operative Dentistry having two parts:
   i. Part I shall have forty five Multiple Choice Questions (MCQs) of 45 marks and the time allotted shall be forty five minutes.
   ii. Paper II shall have fifteen Short Essay Questions (SEQs) of 45 marks and the time allotted shall be two hours and fifteen minutes.

II. Oral and Practical examination shall have 90 marks.

III. The continuous internal assessment shall carry 20 marks i.e 10% of the total allocated marks for the subject. The score will be equally distributed to the theory and practical examinations.

Subject	**Theory**		**Practical**		**Total**
Operative Dentistry	Part I MCQ Part II SEQ Internal assessment	45 Marks 45 Marks 10 Marks **100**	Oral and Practical Internal assessment	90 Marks 10 Marks **100**	200 Marks

Table of specifications for Operative dentistry theory & practical examination

BDS Final professional examination

Subject	MCQs	SEQs
Restorative	18	8
Endodontics	12	2
Crown & bridge	11	3
Paedodontics	4	2

IV. CURRICULUM

CURRICULUM OF OPERATIVE DENTISTRY

LEARNING OBJECTIVES:

The learner should be able to:

1. Assess and formulate a treatment plan
2. Prepare amalgam restorations (class I, II, V)
3. Prepare composite restorations (class I, II, III, IV, V)
4. Usage of GIC as a restorative material
5. Diagnose and assess for repair/ replacement of restorations
6. Diagnose and manage cracks in teeth
7. Diagnose and manage dentine hypersensitivity
8. Assess and prepare aesthetic restorations
9. Prepare restoration of endodontically treated teeth
10. Perform access cavity preparation, determine the working length with a radiographic method, perform cold lateral obturation technique
11. Define and classify types of crown and bridge restorations
12. Assess the suitability of abutment teeth and formulate a treatment plan
13. Prepare different types of crown restorations
14. Evaluate the restorations before insertion
15. Demonstrate insertion of restoration
16. Diagnose and manage developmental defects in primary and permanent teeth
17. Learn to manage trauma to primary and permanent teeth

INTRODUCTION TO RESTORATIVE DENTISTRY

Taught in 2nd, 3rd and 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Define operative dentistry, along with an overview of dental anatomy, histology, physiology and occlusion.	Dr. Saima, Dr. Aisha
2.	Assessment of patients Formulate a diagnosis Assess the prognosis Outline treatment plan for patients.	Dr. Saima, Dr. Aisha
3.	Discuss cross infection control, identify different methods of contamination. Illustrate personal barrier protection, aseptic techniques and sterilization. Amalgam waste disposal.	Dr. Saima, Dr. Aisha
4.	Illustrate patient and operator position and instrument exchange.	Dr. Saima, Dr. Aisha
5.	Discuss isolation techniques. Illustrate rubber dam isolation and other methods.	Dr. Saima, Dr. Aisha
6.	Name and explain instruments and equipment for tooth preparation-hand and rotary instruments.	Dr. Saima, Dr. Aisha
<u>At the end of this course, the student will be able to:</u>		
1.	Evaluate patients, and formulate treatment plans	
2.	Practice cross infection control	
3.	Practice rubber dam application	

DENTAL CARIES

Taught in 3rd, 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Identify the etiology of dental caries.	Dr. Saima, Dr. Aisha
2.	Classify dental caries.	Dr. Saima, Dr. Aisha
3.	Identify the clinical characteristics of dental caries.	Dr. Saima, Dr. Aisha
4.	Analyze the risk assessment.	Dr. Saima, Dr. Aisha

5.	Formulate management protocols.	Dr. Saima, Dr. Aisha
At the end of this course, the student will be able to:		
1.	Identification of dental caries	
2.	Plan management protocols	

AMALGAM RESTORATIONS

Taught in 2nd, 3rd and 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Apply principles of cavity preparation; initial tooth preparation steps-outline form, resistance and retention form, convenience form; amalgam use and manipulation; final tooth preparation steps-removal of remaining carious dentin, pulp protection, liners and bases and its uses, secondary resistance and retention form, finishing of enamel walls and margins and final procedures-cleaning, inspecting and sealing. Finishing and polishing of direct amalgam restorations.	Dr. Saima, Dr. Aisha
2.	Outline the steps of Class I amalgam cavity design and principles, liners and bases, and filling technique-condensation and carving.	Dr. Saima, Dr. Aisha
3.	Outline the steps of Class II amalgam cavity design and principles, matrix placement & liners and bases, and filling technique- condensation and carving.	Dr. Saima, Dr. Aisha
4.	Outline the matrix systems used in direct restorations, matrix application for Class II amalgam, matrix application for Class II, III & IV composite.	Dr. Saima, Dr. Aisha
5.	Outline the steps of Class III, V and VI amalgam cavity design and principles, liners and filling technique-condensation and carving.	Dr. Saima, Dr. Aisha
6.	Identify & enlist the reasons of failure of amalgam restorations Indications/contraindications, replacement options.	Dr. Saima, Dr. Aisha
At the end of this course, the student will be able to:		
1.	Prepare Amalgam Class I restoration	
2.	Prepare Amalgam Class II restoration	
3.	Prepare Amalgam Class III restoration	
4.	Prepare Amalgam Class V restoration	
5.	Prepare Amalgam Class VI restoration	

COMPOSITE RESTORATIONS

Taught in 2nd, 3rd and 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Describe adhesion to enamel and dentin in direct and indirect restorations; classification of dentinal adhesives, related clinical factors.	Dr. Saima, Dr. Aisha
2.	Review composite resins material science; classify and discuss composites, polymerization properties, general considerations for composite restorations, clinical techniques.	Dr. Saima, Dr. Aisha
3.	Rationale of finishing and polishing of composite restorations, the use of burs, disks, interproximal strips and polishing paste.	Dr. Saima, Dr. Aisha
4.	Outline the steps of Class I composite restorations, pit and fissure sealants, preventive resins and conservative composite restorations, clinical techniques for class 1 direct composite restoration.	Dr. Saima, Dr. Aisha
5.	Outline the steps of Class II composite restorations, clinical techniques for class II direct composite restorations, extensive class II direct composite restorations and foundations.	Dr. Saima, Dr. Aisha
6.	Outline the steps of Class III, IV and V composite restorations, class III, IV and V direct composite restorations, clinical techniques for class III direct composite restorations, clinical techniques for class IV direct composite restorations, clinical techniques for class V direct composite restorations.	Dr. Saima
7.	Identify & enlist the reasons of failure of composite restorations Indications/contraindications, replacement options.	Dr. Saima
<u>At the end of this course, the student will be able to:</u>		
1.	Prepare Composite Class I restoration	
2.	Prepare Composite Class II restoration	
3.	Prepare Composite Class III restoration	
4.	Prepare Composite Class IV restoration	
5.	Prepare Composite Class V restoration	

COMPLEX AMALGAM RESTORATIONS & RESTORATION OF ENDODONTICALLY TREATED TEETH

Taught in 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Enlist Indications/contraindications, advantages/disadvantages of complex amalgam restorations	Dr. Saima
2.	Illustrate pin retained amalgam restorations, slot retained, cove, proximal lock, amalgam foundation used in complex amalgam restorations	Dr. Saima
3.	Evaluate the risk analysis and assess and formulate a treatment plan for endodontically treated teeth	Dr. Saima

4.	Discuss material selection and enlist properties of ideal core for restoration of endodontically treated teeth	Dr. Saima
5.	Illustrate post design and materials	Dr. Saima
6.	Describe adhesion within root canal and the clinical principles	Dr. Saima
At the end of this course, the student will be able to:		
1.	Prepare a complex amalgam restoration employing the most suitable method for that preparation	

NON-CARIOUS CERVICAL LESIONS, GIC & DENTINAL HYPERSENSITIVITY

Taught in 3rd, 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Define and discuss non-carious tooth defects-abrasion, erosion, attrition, abfraction & their treatment	Dr. Saima
2.	Review composition, structure and properties of GIC. Identify their clinical use and considerations and modifications of GIC.	Dr. Saima, Dr. Aisha
3.	Define dentinal hypersensitivity; identify its etiology and clinical features, management of dentinal hypersensitivity.	Dr. Saima
At the end of this course, the student will be able to:		
1.	Use GIC as a restorative material	
2.	Use GIC for pulp capping	

BLEACHING AND ABRASION

Taught in 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Classify bleaching treatments. Analyze the mechanism of bleaching.	Dr. Saima
2.	Identify and differentiate between non-vital and vital bleaching procedures.	Dr. Saima
3.	Outline the concept of abrasion. Identify and differentiate between micro abrasion and macro abrasion	Dr. Saima

COMPOSITE VENEERS AND INLAYS AND ONLAYS

Taught in 4th year BDS

Course director: Prof. Dr. Saima Razaq Khan, Dr Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Outline the clinical procedure, tooth preparation and fabrication and cementation of composite veneers.	Dr. Saima
2.	Enlist the indications/contraindications of inlays and onlays, advantages/disadvantages, types and clinical procedure. Metal and tooth-coloured inlays	Dr. Saima, Dr. Moeen

CERAMICS

Taught in 2nd year BDS

Course director: Dr. Aisha Arshad

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Introduction to ceramics, advantages and disadvantages, composition and types, types of crowns, identification of crown and its parts, failure of bonding	Dr. Aisha

INTRODUCTION TO ENDODONTICS

Taught in 3rd, 4th year BDS

Course director: Dr. Anam Fayyaz

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Define endodontics, along with an overview of the root canal system. Explain the objectives, indications and contra-indications of Root Canal Treatment. Summarize the steps for RCT.	Dr. Anam
2.	Discuss the protection of the pulp and preservation of the apex. Define them; explain the iatrogenic effects on dental pulp, and protecting the pulp from the effects of materials.	Dr. Anam
3.	Discuss and outline the introduction of pulp and periapical pathosis, the irritants, inflammatory process, lesion progression. List and discuss the classification of pulpal diseases, classification of periapical diseases, healing of pulp and periapical tissues	Dr. Anam, Dr Aisha
4.	Discuss diagnosis and treatment planning. Outline the diagnostic process, discuss the interpretation of different types of pain; describe the clinical examination, clinical tests, interpretation of radiographic examination, formulation of treatment plan, and systemic considerations.	Dr. Anam

ROOT CANAL PROCEDURE

Taught in 4th year BDS

Course director: Dr. Anam Fayyaz

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Discuss endodontic instruments. Discuss and appraise rubber dam isolation. Name and explain instruments for access cavity preparation, root canal preparation, and for filling root canals	Dr. Anam
2.	Explain pulp space anatomy and access cavities. Identify the components of root canal system; outline the general principles and laws relating to the pulp chamber anatomy. Describe and illustrate the access cavity preparation for anterior teeth, posterior teeth, individual teeth, and discuss and recognize the errors in access.	Dr. Anam
3.	Discuss isolation, goals and methods of isolation. Define and explain working length determination, discuss the methods of working length determination and classification of Apex Locators	Dr. Anam
4.	Define cleaning and shaping of the root canals. Enlist the principles of cleaning, principles of shaping, describe and illustrate apical canal preparation, pretreatment evaluation. Discuss the different root canal preparation techniques and hand instrumentation.	Dr. Anam
5.	Discuss and explain endodontic irrigants, the objectives of irrigation, irrigation hydrodynamics, properties of an ideal irrigants and the types of irrigants used.	Dr. Anam
6.	Explain intra-canal medicaments, benefits of intra-canal medicaments, commonly used intra-canal medicaments, temporary restorations, objectives of temporary restorations and the materials used for temporary restorations.	Dr. Anam
7.	Define and explain obturation, objectives of obturation, materials used for obturation, ideal properties of obturation materials, obturation techniques with gutta-percha and the evaluation of obturation.	Dr. Anam
<u>At the end of this course, the student will be able to:</u>		
1.	Access Cavity Preparation	
2.	Instrument identification	
3.	Radiographic evaluation	
4.	Working Length determination with a radiographic method	
5.	Cold Lateral Obturation Technique	

ENDODONTIC EMERGENCIES AND FLARE-UPS, PROCEDURAL ACCIDENTS, NON-SURGICAL RE-TREATMENTS

Taught in 4th year BDS

Course director: Dr. Anam Fayyaz

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Diagnosis and treatment planning of endodontic emergencies and flare-ups, incidence of exacerbations. Enlist the categories of emergencies, interappointment emergencies and the management of flare-ups.	Dr. Anam

2.	Discuss procedural accidents, explain and describe perforations during access preparation, accidents during cleaning and shaping and accidents during obturation.	Dr. Anam
3.	Indications and contra-indications for non-surgical retreatment, risks and benefits of re-treatment, endodontic retreatment procedures, and discuss the prognosis.	Dr. Anam

ENDODONTIC SURGERY, ENDODONTIC AND PERIODONTAL INTERRELATIONSHIP

Taught in 4th year BDS

Course director: Dr. Anam Fayyaz

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Discuss endodontic surgery, incision for drainage, periapical surgery, corrective surgery, root amputation, hemisection and bicuspidization.	Dr. Anam
2.	Explain the endodontic and periodontal interrelationship, the pathways of communication between the dental pulp and the periodontium, effects of pulpal diseases and endodontic procedures on periodontium, effect of periodontal disease and procedure on pulp and the classification and differential diagnosis of endodontic-periodontic lesions.	Dr. Anam

INTRODUCTION TO CROWN AND BRIDGE, INDICATIONS OF CROWNS

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Introduction to crown and bridge Define -Full veneer crown -partial veneer crown -post and core crown -Porcelain jacket crown/ All ceramic crown -Porcelain fused to metal crown/ Metal ceramic crown -Metal crown	Dr. Moeen ud Din

GENERAL PRINCIPLES OF CROWN PREPARATION

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator

1.	Apply basic principles of crown preparation -Conservation of tooth structure - Retention and resistance form - Marginal integrity - Structural durability -Conservation of periodontium.	Dr. Moeen ud Din

CASE ASSESSMENT FOR CROWN AND BRIDGE

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Asses and formulate a treatment plan for Crown and Bridge - Assessment of general factors - Evaluation of abutment - Treatment planning.	Dr. Moeen ud Din

TYPES OF CROWNS

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Enlist indications & contraindication of crowns -Classify crowns -Identify advantages & disadvantages of different types	Dr. Moeen ud Din

PORCELAIN JACKET CROWN

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	-Enlist indications/ Contraindications of Porcelain Jacket Crown -Outline the steps of preparation for Porcelain Jacket Crown	Dr. Moeen ud Din
At the end of this course, the student will be able to:		
1.	Prepare Porcelain Jacket crown	

PORCELAIN FUSED TO METAL CROWN

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Enlist Indications/ Contraindications of Porcelain fused to metal Crown Outline the steps of Preparation of Porcelain fused to metal Crown	Dr. Moeen ud Din
At the end of this course, the student will be able to:		
1.	Prepare Porcelain fused to metal crown	

POST AND CORE CROWNS

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Enlist Indications/ contraindication of Post and core crown Outline the steps of Preparation for post and core crowns Select technique for making Post and core crown	Dr. Moeen ud Din
At the end of this course, the student will be able to:		
1.	Prepare post and core crown	

CAST METAL CROWN

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Enlist Indications/ Contraindications of metal Crown Outline the steps of Preparation of metal crown	Dr. Moeen ud Din
At the end of this course, the student will be able to:		
1.	Prepare Full veneer metal crown	

PARTIAL VENEER CROWNS

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Enlist Indications/ Contraindications of Partial veneer Crown Outline the steps of Preparation of partial veneer Crown	Dr. Moeen ud Din

TISSUE MANAGEMENT AND IMPRESSION TAKING

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Manage Soft tissues before impression taking Select impression technique for crown and bridge work	Dr. Moeen ud Din
At the end of this course, the student will be able to:		
1.	Prepare Impression techniques	

OCCLUSAL RECORD, TRYING IN, TEMPORARY CROWNS AND CEMENTATION

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Register Occlusion of the patient Temporize the prepared teeth - objectives - types -techniques for chair side temporary crown	Dr. Moeen ud Din
2.	Try-in Crown and Bridge restoration - logical sequence of try-in, Select cementation technique for crowns	Dr. Moeen ud Din
At the end of this course, the student will be able to:		
1.	Prepare Try-in and cementation of crown	

BRIDGE RESTORATIONS

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator

1.	Define bridge restorations Enlist Indications & Contraindications Classify bridge restoration Analyze Advantages and disadvantages of different types bridges	Dr. Moeen ud Din

ABUTMENT SELECTION

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Evaluate and select abutments for a bridge Select a suitable bridge design	Dr. Moeen ud Din

PONTIC SELECTION

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Define Pontic Apply Principles of pontic design Enlist Indications, advantages and disadvantages of different types of pontics Select suitable type of pontic	Dr. Moeen ud Din

RETAINERS AND CONNECTOR SELECTION

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Define Retainers Enlist types of retainers Select retainer for a bridge- factors affecting the selection of a retainer	Dr. Moeen ud Din
2.	Define connector Enlist types of connectors Select type of connector for bridge	Dr. Moeen ud Din

RESIN BONDED BRIDGES

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Define resin bonded bridges Enlist Indications and contraindications Select Type of resin bonded bridges Compare advantages/ disadvantages of different types	Dr. Moeen ud Din

MAINTENANCE, FAILURE & REPAIR OF BRIDGES

Taught in 4th year BDS

Course director: Dr. Moeen ud Din

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Differentiate the success & failure of Crown & Bridge Identify the cause of failure Formulate/design its solution	Dr. Moeen ud Din

INTRODUCTION TO PAEDODONTICS

Taught in 4th year BDS

Course director: Dr. Omer Yousaf

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Introduction to Rationale, Objective and future of Paedodontics. Define and outline objectives of paedodontics	Dr. Omer Yousaf
2.	History, examination, risk assessment, and treatment planning Assessment of patients Formulate a diagnosis Assess the prognosis Outline treatment plan for patients	Dr. Omer Yousaf
<u>At the end of this course, the student will be able to:</u>		
1.	Evaluate patients, and formulate treatment plans	

MANAGEMENT OF CHILD BEHAVIOUR, PAIN AND ANXIETY

Taught in 4th year BDS

Course director: Dr. Omer Yousaf

Sr. No.	Learning Outcomes (LO)	Facilitator

1.	Discuss behavior management. Outline pharmacological and non-pharmacological management of child behavior.	Dr. Omer Yousaf
2.	Explain mental health evaluation and care	Dr. Omer Yousaf
3.	Discuss and explain the role and usage of local anaesthesia, sedation and general anaesthesia	Dr. Omer Yousaf

DENTAL CARIES

Taught in 4th year Bds

Course director: Dr. Omer Yousaf

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Describe pathophysiology of dental caries, diagnosis, preventive measures. Demonstrate instructions for parents counseling, importance of first permanent molars	Dr. Omer Yousaf
2.	Discuss dental caries in the preschool child. Recognize role of fluoride, chlorhexidine gels, fissure sealants, tooth brushing, role of diet. List of measures for management of child behavior.	Dr. Omer Yousaf
3.	Discuss treatment of dental caries in the primary dentition Identify role of pit and fissure sealants List of indications of stainless-steel crown Outline indications of direct and indirect pulp capping	Dr. Omer Yousaf
4.	Discuss treatment of dental caries in young permanent dentition Identify role of pit and fissure sealants Recognition of MIH cases and management. Discuss and describe treatment options for anterior, occlusal, approximal and extensive/deep caries. Treatment options for hypomineralized, hypomature or hypoplastic first permanent molars Management options of rampant caries	Dr. Omer Yousaf

RESTORATIVE MATERIALS IN PAEDODONTICS, MODIFICATION OF RESTORATIVE CAVITY IN CHILDREN & PIT AND FISSURE SEALANTS, ROLE OF FLUORIDE IN TOOTH DEVELOPMENT

Taught in 4th year BDS

Course director: Dr. Omer Yousaf

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Discuss and identify the indications and uses of restorative materials-Amalgam, Composite resin, GIC, Stainless steel crowns. Practice these materials in clinics	Dr. Omer Yousaf

2.	Describe modification of restorative cavity in children Define MID, and demonstrate new techniques for tooth preparation	Dr. Omer Yousaf
3.	Discuss pit and fissure sealants, role of fluoride in caries development, indications of pit and fissure sealants, mechanism of action of fluoride and dental fluorosis	Dr. Omer Yousaf
<u>At the end of this course, the student will be able to:</u>		
1.	Practice the restorative materials in clinics-amalgam, composite, GIC and stainless-steel crowns	

ENDODONTICS IN CHILDREN, MANAGEMENT OF IMMATURE ROOT APEX & TRAUMATIC INJURIES TO TEETH

Taught in 4th year BDS

Course director: Dr. Omer Yousaf

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Define pulpotomy, pulpectomy Describe the procedure List of indications and contraindications of pulpotomy and pulpectomy	Dr. Omer Yousaf
2.	Define apexification, apexogenesis Describe the procedure Describe MTA and its properties	Dr. Omer Yousaf
3.	Discuss the endodontic aspects of traumatic injuries, classification of tooth fractures, diagnosis, endodontic management of tooth fractures, longitudinal tooth fractures	Dr. Omer Yousaf
<u>At the end of this course, the student will be able to:</u>		
1.	Assist the procedure of pulpotomy in the clinics	

ANOMALIES OF TOOTH FORMATION AND ERUPTION, HEREDITARY DISORDERS, MEDICAL CONDITIONS SPECIFIC TO CHILDREN, MANAGEMENT OF HANDICAPPED CHILDREN

Taught in 4th year BDS

Course director: Dr. Omer Yousaf

Sr. No.	Learning Outcomes (LO)	Facilitator
1.	Identification of missing teeth, extra teeth, abnormality of tooth size, tooth form, root form, tooth structure. Describe disturbance of eruption and exfoliation. Describe dental effects of prematurity and low weight birth	Dr. Omer Yousaf
2.	Discuss hereditary disorders and medical conditions specific to the children Define syndrome Recognize different syndromes with specific features	Dr. Omer Yousaf

	List of syndromes and their dental management	
3.	Identify medical conditions in children Names of diseases and their management	Dr. Omer Yousaf
4.	Outline the management of handicapped children, techniques of oral care and home care remedies	Dr. Omer Yousaf

V. ACADEMIC CALENDERS

I. 2nd Year BDS
II. 3rd Year BDS
III. Final Year BDS

2nd YEAR BDS

LECTURES AND PRACTICALS SCHEDULE

Sr. #	Date	Day	Time	Topics
1	**2nd march**	**Thursday**	**10:45 to 11:30AM**	**Introduction to Operative Dentistry**
		Thursday	12:30 to 2:30PM	Introduction & Orientation to preclinical Operative Dentistry(A)
	6th march	Monday	12:30 to 2:30PM	Introduction & Orientation to preclinical Operative Dentistry BATCH (B)
	8th			SAHABEBARAT
2	**9th march**	**Thursday**	**10:45 to 11:30AM**	**Patient assessment and management**
		Thursday	12:30 to 2:30PM	History taking & informed consent(A)
	13th march	Monday	12:30 to 2:30PM	History taking & informed consent(b)
3	**16th march**	**Thursday**	**10:45 to11:30AM**	Patient Assessment, Examination ,Diagnosis ,and Treatment Planning
		Thursday	12:30 to 2:30PM	Diagnosis and treatment planning(A)
	20th march	Monday	12:30 to 2:30PM	Diagnosis and treatment planning(B)
4	23rd march	thursday		PAKISTAN RESOLUTION DAY
	27	Monday		
5	**30th march**	**Thursday**	**10:45 to 11:30AM**	Patient Assessment, Examination ,Diagnosis ,and Treatment Planning
			12:30 to 2:30PM	Clinical examination(A)
		Monday	12:30 to 2:30PM	Clinical examination (B)
6	**6th April**	**Thursday**	**10:45 to 11:30AM**	Patient Assessment, Examination ,Diagnosis ,and Treatment Planning
		Thursday	12:30 to 2:30PM	Radiographic interpretation
		Monday	11:50 to 1:00PM	Radiographic interpretation
7	**13TH April**	**Thursday**	**9:40 to 10:20AM**	Infection Control
		Thursday	11:00 to 1:00PM	Hand Hygiene / Hand washing technique
		Monday	11:00 to 1:00PM	Hand Hygiene / Hand washing technique
8	**20th April**	**Thursday**	**9:40 to 10:20AM**	Infection Control
		Thursday	11:00 to 1:00PM	Putting on and Removing PPE (Personal Protective Equipment): Masks, Protective Eyewear, Face shields, Protective clothing, Gowns, Gloves A
		Monday	11:00 to 1:00PM	Putting on and Removing PPE (Personal Protective Equipment): Masks, Protective Eyewear, Face shields, Protective clothing, Gowns, Gloves B
				23 ,24, 25 EID UL FITAR
9	**27th Aril**	**Thursday**	**9:40 to 10:20AM**	Instruments and Equipment for Tooth Preparation…
		Thursday	11:00 to 1:00PM	Transport of instruments to the processing area Cleaning/ Washing of instruments Packaging of instruments A
	1ST MAY			1ST MAY LABOUR DAY
		Monday	11:00 to 1:00PM	Transport of instruments to the processing area Cleaning/ Washing of instruments Packaging of instruments
10	**4TH MAY**	**Thursday**	**9:40 to 10:20AM**	Instruments and Equipment for ToothPreparation…

		Thursday	11:00 to 1:00PM	Sterilization monitoring (Verification of sterility using physical, chemical, and biological indicators)
		Monday	12:30 to 2:30PM	Sterilization monitoring (Verification of sterility using physical, chemical, and biological indicators)
11	**11TH MAY**	**Thursday**	**10:45 to 11:30AM**	Introduction to Silver Amalgam
		Thursday	12:30 to 2:30PM	Sterilization of dental handpieces, burs, and other restorative materials
		Monday	12:30 to 2:30PM	Sterilization of dental handpieces, burs, and other restorative materials
12	**18TH MAY**	***Thursday***	**10:45 to 11:30AM**	Introduction to Silver Amalgam
		Thursday	12:30 to 2:30PM	Needle stick injury prevention and immediate management
		Monday	12:30 to 2:30PM	Needle stick injury prevention and immediate management
13	**25TH MAY**	***Thursday***	**10:45 to 11:30AM**	Introduction to Silver Amalgam
		Thursday	12:30 to 2:30PM	Identification of hand instruments (cutting, non-cutting)
		Monday	12:30 to 2:30PM	Identification of hand instruments (cutting, non-cutting)
14	**1 JUNE**	***Thursday***	**10:45 to 11:30AM**	**GIC**
		Thursday	12:30 to 2:30PM	Dental control unit water systems and handpiece asepsis(online chapter downloads)124e
		Monday	12:30 to 2:30PM	Dental control unit water systems and handpiece asepsis(downloads)124e
15	***8TH JUNE***	***Thursday***	**10:45 to 11:30AM**	**GIC**
		Thursday	12:30 to 2:30PM	Identification and manipulation of dental materials GIC
		Monday	12:30 to 2:30PM	Identification and manipulation of dental materials GIC
16	**15TH JUNE**	***Thursday***	**10:45 to 11:30AM**	**COMPOSITE**
	15th june	Thursday	12:30 to 2:30PM	Identification of powered/rotary cutting equipment Hazards with cutting instruments and their prevention
				16th june till 15th july summer vacations
	17th JULY	Monday	12:30 to 2:30PM	Identification of powered/rotary cutting equipment
17	**20TH JULY**	**Thursday**	**10:45 to 11:30AM**	**COMPOSITE**
		Thursday	12:30 to 2:30PM	manipulation of dental materials COMPOSITE
		Monday	12:30 to 2:30PM	manipulation of dental materials COMPOSITE Identification and manipulation of dental materials (Amalgam),

18	**27TH JULY**	**Thursday**	**10:45 to 11:30AM**	**COMPOSITE**
		Thursday	12:30 to 2:30PM	Identification and manipulation of dental materials Amalgam
		Monday	12:30 to 2:30PM	Identification and manipulation of dental materials Amalgam
19	**3rd AUGUST**	**Thursday**	**10:45 to 11:30AM**	**LINERS AND BASES(CALCIUM HYDROXIDE)**
		Thursday	12:30 to 2:30PM	Disposal of amalgam waste
		Monday	12:30 to 2:30PM	Disposal of amalgam waste
20	**10TH AUGUST**	**Thursday**	**10:45 to11:30AM**	**LINERS AND BASES(CALCIUM HYDROXIDE)**
		Thursday	12:30 to 2:30PM	Ceramics ,metal copings ,PFMS CROWN
		Monday	12:30 to 2:30PM	**14th august**
21	**17TH AUGUST**	**Thursday**	**10:45 to 11:30AM**	**CERAMIC**
		Thursday	12:30 to 2:30PM	Amalgam waste disposal
		Monday	12:30 to 2:30PM	Amalgam waste disposal
22	**24TH AUGUST**	**Thursday**	**10:45 to 11:30AM**	**CERAMIC**
		Thursday	12:30 to 2:30PM	Rubber Dam application
		Monday	12:30 to 2:30PM	Rubber Dam application
23	**31st AUGUST**	**Thursday**	**10:45 to 11:30AM**	**RUBBER DAM/ISOLATION**
		Thursday	12:30 to 2:30PM	Placement of tofflemire retainer
		Monday	12:30 to 2:30PM	Placement of tofflemire retainer
24	**7th SEPT**	**Thursday**	**10:45 to 11:30AM**	**RUBBER DAM/ISOLATION**

3RD YEAR BDS

LECTURES AND PRACTICALS SCHEDULE

Sr. #	Date	Day	Time	Topic
	3RD APRIL	Monday	9:30 to 2:30pm	Introduction to Operative Dentistry Instruments (hand & rotary instruments)
	4TH APRIL	Tuesday	11:30 to 2:30pm	Instruments (hand & rotary instruments)
1	**6th APRIL**	**THURSDAY**	**8:00 to 8:45am**	**INTRODUCTION TO OPERATIVE DENTISTRY**
	7TH APRIL	Friday	9:30 to 12:00pm	Ergonomics in dentistry/
	10	Monday	9:30 to 1:00pm	Isolation/Rubber Dam Tooth morphology
	11	Tuesday	11:30 to 1:00pm	Fundamentals of tooth preparation
2	**13 THAPRIL**	**THURSDAY**		**DENTAL CARIES**
	14th	Friday	9:30 to 12:00pm	Fundamentals of Tooth Preparation(Practical)
	17	Monday	9:30 to 1:00pm	class I Amalgam Restoration(Design and Principles
	18	Tuesday	11:00 to 1:00pm	class I Amalgam Restoration(Design and Principles
3	**20 TH APRIL**	**THURSDAY**	**8:00 to 8:45am**	**DENTAL CARIES**
	21st	Friday		class I Amalgam Restoration(condensation and carving)
				22 ,23,24,25(ed ul fitar)calender
	24	Monday		class I Amalgam Restoration Finishing &polishing
	25	Tuesday		class II Amalgam Restoration Design and Principles
4	**27TH APRIL**	**Thursday**		**DENTAL CARIES**
	28TH	Friday	9:30 to 1:00pm	class I IAmalgam Restoration((Design and Principles
		Monday	9:30 to 2:30pm	class II Amalgam Restoration(Liners & Bases
		Tuesday	11:30 to 2:30pm	Matrix band placement
5	**4TH MAY**	**THURSDAY**	**8:00 to 8:45am**	**PATIENT ASSESMENT, EXAMINATION((LECTURE**
	5TH	Friday	9:30 to 1:00pm	class II Amalgam Restoration(Condensation ,Carving)
		Monday	9:30 to 2:30pm	class II Amalgam Restoration(finishing and polishing)
		Tuesday	11:30 to 2:30pm	
6	**11TH MAY**	**THURSDAY**	**8:00 to 8:45am**	**PATIENT ASSESMENT, EXAMINATION((LECTURE)**
	12TH	Friday	9:30 to 1:00pm	Class II Amalgam Restoration(Condensation ,Carving)
		Monday	9:30 to 2:30pm	Class IIAmalgam Restoration(Finishing &polishing)
		Tuesday	11:30 to 2:30pm	Clinical Technique for ClassV Amalgam Restoration
7	**18TH MAY**	**Thursday**		**Patient Assesment, Examination((LECTURE)**
	19TH	Friday	9:30 to 1:00pm	TEST
		Monday	9:30 to 2:30pm	Clinical Technique for ClassII Amalgam Restoration
		Tuesday	11:30 to 2:30pm	Clinical Technique for ClassII Amalgam Restoration
8	**25TH MAY**	**Thursday**		**Infection Control ((LECTURE)**

	26TH	Friday	9:30 to 1:00pm	Composite restoration
		Monday	9:30 to 2:30pm	Composite restoration
		Tuesday	11:30 to 2:30pm	Composite restoration
9	**1ST JUNE**	**Thursday**		**Infection Control**
	2ND	Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
10	**8TH JUNE**	**Thursday**		**Infection Control**
	9TH	Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
11	**15TH JUNE**	**Thursday**		**Fundamentals of Tooth Preparation**
	16TH	Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
12	**22ND JUNE**	**Thursday**		**Fundamentals of Tooth Preparation**
	23rd june	Friday	9:30 to 1:00pm	**PRACTICAL**
				24th june till 30th june summer vacations
		Monday	9:30 to 2:30pm	**summer vacations**
		Tuesday	11:30 to 2:30pm	**summer vacations (TILL SUNDAY)**
				EID UL ADHA
	3 july	monday		**practical**
	4th july	tuesday		**practical**
13	**6TH JULY**	**Thursday**	**9:30 to 2:30pm**	**Fundamentals of Tooth Preparation**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
14	**13TH JULY**	**Thursday**		**Introduction To Silver Amalgam**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
15	**20TH JULY**	**Thursday**		**Introduction To Silver Amalgam**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
16	**27TH JULY**	**Thursday**		**Instrument and equipment**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
17	**3RD AUGUST**	**Thursday**		**Instrument and equipment**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
18	**10TH AUGUST**	**Thursday**		**Instrument and equipment**

		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
19	17TH AUGUST	**Thursday**		**CLASS I AMALGAM RESTORATION**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
	25TH	Tuesday	11:30 to 2:30pm	
20	**24TH AUGUST**	**Thursday**		**CLASS I AMALGAM RESTORATION**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
21	**3IST August**	**Thursday**		**CLASS II AMALGAM RESTORATION**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
22	**7TH SEPTEMBER**	**Thursday**		**CLASS II AMALGAM RESTORATION**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
23	**14TH SEPTEMBER**	**Thursday**		**PULP AND PERIAPICAL PATHOSIS**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
24	**21ST SEPT**	**Thursday**		**PULP AND PERIAPICAL PATHOSIS**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
25	**28TH SEPT**			MAILAD UN NABI
		Thursday		
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday		
				6 MONTHS THEORY LECTURES completion
26	**5TH OCTOBER**	**Thursday**		**GENERAL SURGERY CLASS**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	

	12 OCT	**Thursday**		**GENERAL SURGERY CLASS**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
	19 OCT	**Thursday**		**G.S Class**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
	26 OCT	**Thursday**		**G.S Class**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
	2 NOV	**Thursday**		**G.S Class**
		Friday	9:30 to 1:00pm	
		Monday		
		Tuesday	11:30 to 2:30	
	9 NOV	**Thursday**		**IQBAL DAY(HOLIDAY)**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
	16 NOV	**Thursday**		**G.S Class**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
	23 NOV	**Thursday**		**G.S Class**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
	30 NOV	**Thursday**		**G.S Class**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30	
	7 DEC	**Thursday**		**G.S Class**
		Friday	9:30 to 1:00pm	
		Monday	9:30 to 2:30pm	
		Tuesday	11:30 to 2:30pm	
	14 DEC	**Thursday**		**G.S Class**
			9:30 to 1:00pm	
			9:30 to 2:30pm	
			11:30 to 2:30pm	
	21 DEC	**Thursday**		**G.S Class**
			9:30 to 1:00pm	
			9:30 to 2:30pm	
			11:30 to 2:30pm	
	28 DEC	**Thursday**		**G.S Class**
			9:30 to 1:00pm	

			9:30 to 2:30pm	
			11:30 to 2:30pm	
	4 JAN	**Thursday**		**G.S Class**
			9:30 to 1:00pm	
			9:30 to 2:30pm	
			11:30 to 2:30pm	
	11 JAN	**Thursday**		**G.S Class**
			9:30 to 1:00pm	
			9:30 to 2:30pm	
			11:30 to 2:30pm	

FINAL YEAR BDS

LECTURES & TEST SCHEDULE

Sr#	Day/Date	Topic	Faculty
1.	03.04.23 Mon	Introduction to Operative Dentistry	Dr Saima
2.	05.04.23 Wed	Principles of Cavity Preparation	Dr Saima
3.	06.04.23 Thurs	Principles of Cavity Preparation	Dr Saima
4.	10.04.23 Mon	Principles of Cavity Preparation	Dr Saima
5.	12.04.23 Wed	Clinical technique of Amalgam	Dr Saima
6.	13.04.23 Thurs	Fundamentals of Adhesion	Dr Saima
7.	17.04.23 Mon	Clinical techniques of Composite	Dr Saima
8.	19.04.23 Wed	Class I Amalgam	Dr Saima
9.	20.04.23 Thurs	Introduction to Endodontics	Dr Anam
	24.04.23 Mon	**Eid Holiday**	
10.	26.04.23 Wed	Pathogenesis of Pulp and Periapical diseases	Dr Anam
11.	27.04.23 Thurs	Pathogenesis of Pulp and Periapical diseases	Dr Anam
	01.05.23 Mon	**Holiday**	
12.	03.05.23 Wed	**Class Test 1**	
13.	04.05.23 Thurs	Endodontic Diagnosis and Treatment Planning	Dr Anam
14.	08.05.23 Mon	Endodontic Diagnosis and Treatment Planning	Dr Anam
15.	10.05.23 Wed	Endodontic Instruments	Dr Anam
16.	11.05.23 Thurs	Pulp space Anatomy	Dr Anam
17.	15.05.23 Mon	Access cavities	Dr Anam
18.	17.05.23 Wed	Introduction to Crown & Bridge, Indications of crown	Dr Moeen
19.	18.05.23 Thurs	General principles of crown preparation	Dr Moeen
20.	22.05.23 Mon	General principles of crown preparation	Dr Moeen
21.	24.05.23 Wed	Types of crowns, Porcelain Jacket crown	Dr Moeen
22.	25.05.23 Thurs	Porcelain fused to metal crown	Dr Moeen
23.	29.05.23 Mon	Metal crown	Dr Moeen

24.	31.05.23 Wed	Partial veneer crown	Dr Moeen
25.	01.06.23 Thurs	Paeds	Dr Omer
26.	05.06.23 Mon	**Class test 2**	
27.	07.06.23 Wed	Paeds	Dr Omer
28.	08.06.23 Thurs	Paeds	Dr Omer
29.	12.06.23 Mon	Paeds	Dr Omer
30.	14.06.23 Wed	Class I Composite	Dr Saima
31.	15.06.23 Thurs	Class II Amalgam	Dr Saima
32.	19.06.23 Mon	Class II Composite	Dr Saima
33.	21.06.23 Wed	Class III Amalgam	Dr Saima
34.	22.06.23 Thurs	Class III and Class IV Composite	Dr Saima
35.	26.06.23 Mon	Class V Composite	Dr Saima
	28-29.06.23 Wed Thurs	**Holiday**	
36.	03.07.23 Mon	**Class Test 3**	
37.	05.07.23 Wed	Dental Caries	Dr Saima
38.	06.07.23 Thurs	Dental Caries	Dr Saima
39.	10.07.23 Mon	Dental Caries	Dr Saima
40.	12.07.23 Wed	NCCL Restorations	Dr Saima
41.	13.07.23 Thurs	Macro Vs Micro Abrasion Resin Infiltration	Dr Saima
42.	17.07.23 Mon	Cleaning and shaping	Dr Anam
43.	19.07.21 Wed	Endodontic Irrigants	Dr Anam
44.	20.07.23 Thurs	Intracanal medicaments	Dr Anam
45.	24.07.23 Mon	Obturation	Dr Anam
46.	26.07.23 Wed	Obturation	Dr Anam
47.	27.07.23 Thurs	Procedural Accidents	Dr Anam
48.	31.07.23 Mon	Endodontic Emergencies and Flare ups	Dr Anam
49.	02.08.23 Wed	Post & core crown	Dr Moeen
50.	03.08.23 Thurs	Post & core crown	Dr Moeen
51.	07.08.23 Mon	**Class Test 4**	

52.	09.08.23 Wed	Impression material & techniques	Dr Moeen
53.	10.08.23 Thurs	Occlusal record & temporary crown	Dr Moeen
	14.08.23 Mon	**Holiday**	
54.	16.08.23 Wed	Try in & cementation	Dr Moeen
55.	17.08.23 Thurs	Types & indication of bridges	Dr Moeen
56.	21.08.23 Mon	Abutment selection	Dr Moeen
57.	23.08.23 Wed	Paeds	Dr Omer
58.	24.08.23 Thurs	Paeds	Dr Omer
59.	28.08.23 Mon	Paeds	Dr Omer
60.	30.08.23 Wed	Paeds	Dr Omer
61.	31.08.23 Thurs	Paeds	Dr Omer
62.	04.09.23 Mon	**Class Test 5**	
63.	06.09.23 Wed	Paeds	Dr Omer
64.	07.09.23 Thurs	Paeds	Dr Omer
65.	11.09.23 Mon	Paeds	Dr Omer
66.	13.09.23 Wed	Vital Tooth Bleaching	Dr Saima
67.	14.09.23 Thurs	Non-Vital Tooth bleaching	Dr Saima
68.	18.09.23 Mon	Direct Composite Veneers	Dr Saima
69.	20.09.23 Wed	Indirect Veneers	Dr Saima
70.	21.09.23 Thurs	Inlays and Onlays	Dr Saima
71.	25.09.23 Mon	Complex Amalgam Restoration	Dr Saima
72.	27.09.23 Wed	Restoration of Endodontically treated teeth	Dr Saima
73.	28.09.23 Thurs	Non-surgical Retreatment	Dr Anam
74.	02.10.23 Mon	**Class Test 6**	
75.	04.10.23 Wed	Endodontic Surgery	Dr Anam
76.	05.10.23 Thurs	Endodontic Surgery	Dr Anam
77.	09.10.23 Mon	Dental Trauma	Dr Anam
78.	11.10.23 Wed	Dental Trauma	Dr Anam
79.	12.10.23 Thurs	Differential Diagnosis of non-pulpal origin	Dr Anam

80.	16.10.23 Mon	Pontic design & selection	Dr Moeen
81.	18.10.23 Wed	Retainer selection	Dr Moeen
82.	19.10.23 Thurs	Connector selection	Dr Moeen
83.	23.10.23 Mon	Resin bonded bridges	Dr Moeen
84.	25.10.23 Wed	Resin bonded bridges	Dr Moeen
85.	26.10.23 Thurs	Post-op care and Reasons for failure of crown	Dr Moeen
86.	30.10.23 Mon	**Class Test 7**	
87.	01.11.23 Wed	Paeds	Dr Omer
88.	02.11.23 Thurs	Paeds	Dr Omer
89.	06.11.23 Mon	Paeds	Dr Omer
90.	08.11.23 Wed	Paeds	Dr Omer
	09.11.23 Thurs	**Holiday**	
91.	13.11.23 Mon	Paeds	Dr Omer
92.	15.11.23 Wed	Paeds	Dr Omer
93.	16.11.23Thurs	Dentin hypersensitivity	Dr Saima
94.	20.11.23Mon	Restorative Periodontology	Dr Saima
95.	22.11.23 Wed	Restorative Periodontology	Dr Saima
96.	23.11.23 Thurs	Tooth resorption	Dr Anam
97.	27.11.23 Mon	Tooth fractures	Dr Anam
98.	29.11.23 Wed	Metal Inlays and Onlays	Dr Moeen
99.	30.11.23 Thurs	Tooth coloured Inlays and Onlays	Dr Moeen
100.	04.12.23 Mon	**Class test 8**	
101.	06.12.23 Wed	Paeds	Dr Omer
102.	07.12.23 Thurs	Paeds	Dr Omer

VI. CLINICAL LEARNING OBJECTIVES

FINAL YEAR BDS

CLINICAL DEMONSTRATIONS

SR. NO.	SUBJECT	TOPIC
1	**RESTORATIVE**	**Clinical Demonstration**; History taking and treatment planning, Cross infection Protocol Demonstration, Instruments and Materials, Rubber Dam Application, Matrix systems & Pulp protection **Book reading**; Principles of Cavity Preparations
2		**Book reading & Clinical Demonstration**; Class I Cavity Preparation for Amalgam
3		**Book reading**; Class II Cavity Preparation for Amalgam
4		**Clinical Demonstration**; Class II Cavity Preparation for Amalgam
5		**Book reading;** Class I Cavity Preparation for Composite
6		**Clinical Demonstration**; Class I Cavity Preparation for Composite
7		**Book reading**; Class II Cavity Preparation for Composite
8		**Clinical Demonstration**; Class II Cavity Preparation for Composite
9		**Book reading**; Class III Cavity Preparation for Composite
10		**Clinical Demonstration**; Class III Cavity Preparation for Composite
11		**Book reading**; Class IV Cavity Preparation for Composite
12		**Clinical Demonstration**; Class IV Cavity Preparation for Composite

CLINICAL DEMONSTRATIONS SCHEDULE FOR ROTATIONAL BATCH FINAL YEAR BDS

Sr #	LEARNING OBJECTIVES	DAYS	
	History taking and treatment planning		
1.	History taking and informed consent		PG: Dr Ahmad Shah
2.	Clinical examination		
3.	Radiographic interpretation		
4.	Diagnosis and treatment planning for dental carious lesions		
	Cross infection Protocol		
5.	Hand Hygiene / Hand washing technique		PG: Dr Ayesha Shafique
6.	Putting on and Removing PPE, Masks, Protective Eyewear, Face shields, Protective clothing, Gowns, Gloves		
7.	Transport of instruments to the processing area		
8.	Cleaning/ Washing of instruments		
9.	Packaging of instruments		
10.	Sterilization monitoring (Verification of sterility using physical, chemical, and biological indicators)		
11.	Sterilization of dental handpieces, burs, and other restorative materials		
12.	Needle stick injury prevention and immediate management		
13.	Disinfection of dental units	**01**	
	Instruments and Materials		
14.	Identification of hand instruments (cutting, non-cutting)		PG: Dr Sara Tahir
15.	Identification of powered/rotary cutting equipment		
16.	Hazards with cutting instruments and their prevention		
17.	Identification and manipulation of dental materials (Amalgam, Composite, GIC, Calcium hydroxide, Etchant, Bonding agent)		
18.	Amalgam waste disposal		
	Rubber Dam Application		
19.	Patient counselling for rubber dam application		PG: Dr Ifra Ikhlaq
20.	Anterior segment isolation		
21.	Premolar isolation		
22.	Fractured tooth isolation		
23.	Molar isolation		
24.	Single tooth isolation		
25.	Rubber Dam application		
	Matrix System		
26.	Placement of tofflemire retainer according to clinical situation		Demonstrator:
27.	Placement of palodent retainer according to clinical situation	**01**	

28.	Placement of mylar strip matrix for Anterior Composite Restoration; identification of other matrix systems available		Dr Maham/Dr Nayaab
	Pulp Protection		
29.	Vital pulp therapy procedures	**01**	Demonstrator: Dr Maham/Dr Nayaab
30.	Application of liner/ base before restoration (according to clinical situation)		

RESTORATIVE CLINICAL LEARNING OBJECTIVES (FINAL YEAR)

Sr #	LEARNING OBJECTIVES	PERFORMED	NOT PERFORMED	DAYS	MODE OF ASSESSMENT		EVALUATION	EVALUATE		CAN PERFORM CONFIDENTLY	CANNOT PERFORM CONFIDENTLY
	History taking and treatment planning				**Clinical test**	**Viva**	**Test result & student feedback**	**Faculty**	**Teaching assistant**		
1.	History taking and informed consent										
2.	Clinical examination										
3.	Radiographic interpretation										
4.	Diagnosis and treatment planning for dental carious lesions										
	Cross infection Protocol										
5.	Hand Hygiene / Hand washing technique										
6.	Putting on and Removing PPE (Personal Protective Equipment) Masks, Protective Eyewear, Face shields, Protective clothing, Gowns, Gloves										
7.	Transport of instruments to the processing area										

8.	Cleaning/ Washing of instruments										
9.	Packaging of instruments										
10.	Sterilization monitoring (Verification of sterility using physical, chemical, and biological indicators)										
11.	Sterilization of dental handpieces, burs, and other restorative materials										
12.	Needle stick injury prevention and immediate management										
13.	Disinfection of dental units										
	Instruments and Materials										
14.	Identification of hand instruments (cutting, non-cutting)										
15.	Identification of powered/rotary cutting equipment										
16.	Hazards with cutting instruments and their prevention										
17.	Identification and manipulation of dental materials (Amalgam, Composite, GIC,										

	Calcium hydroxide, Etchant, Bonding agent)										
18.	Amalgam waste disposal										
	Rubber Dam Application										
19.	Patient counselling for rubber dam application			**01**							
20.	Anterior segment isolation										
21.	Premolar isolation										
22.	Fractured tooth isolation										
23.	Molar isolation										
24.	Single tooth isolation										
25.	Rubber Dam application										
	Matrix System										
26.	Placement of tofflemire retainer according to clinical situation+			**01**							
27.	Placement of palodent retainer according to clinical situation										
28.	Placement of mylar strip matrix for Anterior Composite Restoration; identification of other matrix systems available										
	Pulp Protection										

29.	Vital therapy procedures										
30.	Application of liner/ base before restoration (according to clinical situation)			**01**							
	Amalgam Restorations										
31.	Conservative Class I Cavity Preparation for Amalgam Restoration			**08**							
32.	Extensive Class I Amalgam Restoration										
33.	Class Il Cavity Preparation for Amalgam Restoration										
34.	Class V Cavity Preparation for Amalgam Restoration										
	Composite Restorations										
35.	Bonding protocol before Composite Restoration (Etch & Rinse, Self-Etch)			**09**							
36.	Cavity preparation and restoration for Class I Composite										
37.	Cavity preparation and restoration for Class Il Composite										
38.	Cavity preparation and restoration for Class III Composite										

39.	Cavity preparation and restoration for Class IV Composite										
40.	Cavity preparation and restoration for Class V Composite										

ENDODONTIC CLINICAL LEARNING OBJECTIVES (FINAL YEAR)

Sr #	LEARNING OBJECTIVES	PERFORMED	NOT PERFORMED	DAYS	MODE OF ASSESSMENT		EVALUATION	EVALUATE		CAN PERFORM CONFIDENTLY	CANNOT PERFORM CONFIDENTLY
	Identification of Endodontic Instruments				**Clinical test**	**Viva**	**Test result & student feedback**	**Faculty**	**Teaching assistant**		
1.	Burs (Round diamond bur, tapered diamond bur, Endo Z bur)			**2**							
2.	Reamers										
3.	Files (K&H)										
4.	Barbed broaches										
5.	DG16 Explorer										
6.	Endodontic Explorer										
7.	Pluggers										
8.	Spreaders										
9.	Lentulospiral										
10.	Electric pulp tester										
11.	Apex locator										
12.	Rotary files										
13.	Endomotor										
14.	Obtura										
	Radiographic Interpretation										

15.	Internal & External resorption										
16.	Apical Periodontitis										
17.	Pulp stone										
18.	Dental Trauma/VRF										
	Steps of root canal preparation										
19.	Pulp space Anatomy										
20.	Prepare access cavity			**1**							
21.	Determination of working length										
22.	Cleaning and Shaping of the root canal			**2**							
23.	Root canal obturation			**2**							
	Patient Counselling & Management										
24.	Fractured File										
25.	Ledge Formation										
26.	Perforations										
27.	Over & Under obturated canal										
28.	Instrument aspiration/ ingestion			**2**							

29.	Vertical root fracture										
30.	Extraction of tooth undergoing Root canal treatment										
31.	**Clinical Test and Viva**			**1**							

CROWN & BRIDGE CLINICAL LEARNING OBJECTIVES (FINAL YEAR)

Sr #	LEARNING OBJECTIVES	PERFORMED	NOT PERFORMED	DAYS	MODE OF ASSESSMENT		EVALUATION	EVALUATE		CAN PERFORM CONFIDENTLY	CANNOT PERFORM CONFIDENTLY
	History taking and treatment planning				**Clinical test**	**Viva**	**Test result & student feedback**	**Faculty**	**Teaching assistant**		
1.	History taking and informed consent			**2**							
2.	Clinical examination										
3.	Radiographic interpretation										
4.	Assess and formulate a treatment plan for Crown/Bridge										
5.	Evaluation and selection of abutments for a bridge										
6.	Communication with the patient according to the clinical scenarios										
	Clinical procedures for Crown										
7.	Shade matching										

8.	Putty index for crown preparation										
9.	Identification of crown cutting burs										
10.	Porcelain jacket crown preparation										
11.	Porcelain fused to metal crown preparation			**3**							
12.	Cast metal crown preparation										
13.	Tissue management and impression making										
	Restoration of endodontically treated tooth										
14.	Identification and selection of post										
15.	Preparation for post			**1**							
16.	Cementation of post										
	Lab procedures for metal ceramic crown										
17.	Wax up										
18.	Investment										
19.	Casting			**1**							
20.	Porcelain layering and baking										
	Steps in placement of Crown										
21.	Temporization										

22.	Identification of temporary crown/bridge			**1**							
23.	Try-in and cementation of crown										
	Bridges										
24.	Identification of components of a bridge			**1**							
25.	Identification of resin bonded bridge										
26.	Selection of bridge design										
27.	**Clinical Test and Viva**			**1**							

PAEDODONTICS CLINICAL LEARNING OBJECTIVES (FINAL YEAR)

Sr #	LEARNING OBJECTIVES	PERFORMED	NOT PERFORMED	DAYS	EVALUATE		CAN PERFORM CONFIDENTLY	CANNOT PERFORM CONFIDENTLY
	History taking and treatment planning				**Faculty**	**Teaching assistant**		
1.	Clinical Examination							
2.	Diagnosis & treatment planning for dental carious lesions; Radiology			**2**				
3.	Behaviour management			**2**				
4.	Patient counselling			**1**				
	Instruments and Materials							
5.	Stainless steel crown kits parts & use			**1**				
6.	Stainless steel crown preparation							
	Pulp Protection/Preventive procedures							
7.	Pulpotomy/ Pulpectomy Technique			**2**				
8.	Pit and fissure sealants			**1**				
9.	Fluoride application			**1**				

CLINICAL DUTIES AND REQUIREMENTS

- Each student will spend a total of 10 weeks approximately in final year in the Department of Operative dentistry
- Each student will be required to:

Third Year BDS

Restorative Clinical Exercises

S. No	Pre-Clinical Performance	No. of Practices
1	Amalgam Class I	04
2	Amalgam Class II	04
3	Observation Exercises	08

Final Year BDS

S. No	Clinical Quota	No. of Practices
1	**Restorations**	• 15 Amalgam • 15 Composite
2	**Crown & Bridge**	• 1 Porcelain Jacket Crown Preparation, • Impression taking, chair side temporary crowns • 1 Porcelain fused to metal crown preparations • 1 metal crown preparation • Trail and cementation of crowns
3	**Endodontics**	• Endodontic Access instruments • Root canal preparation Instruments • Root canal Obturation Instruments
	Instrument identification exercise	
	Endodontic exercise – Endoblock	• Access cavity • Working length determination • RC preparation • RC obturation

Record of this clinical work will be maintained in the Pre-clinical and **Clinical Quota Book.**

PRESENTATIONS TOPICS FOR FINAL YEAR BDS

Every Friday

Sr.no	Topic
1.	Liner & Bases, Pulp capping (direct & indirect)
2.	Preventive resin restoration & Fissure sealants
3.	Finishing & polishing of amalgam
4.	Types of bevel & retention of composite
5.	Types of $Ca(oH)_2$ & mechanism of action (setting reaction)
6.	Types of GICs & mechanism of action (setting reaction)
7.	Different Phases of Amalgam & Setting reaction, Delayed expansion of amalgam
8.	Finishing & polishing of composites
9.	Caries risk assessment
10.	Principles of cavity preparation
11.	Types of retainers(matrices)
12.	Class II amalgam cavity design
13.	Composition of different types of composites
14.	Micro leakage composites / amalgam
15.	Enamel adhesion
16.	Dentine adhesion & classification of dentinal adhesives
17.	Wet bonding / Dry bonding
18.	Common problems in composites restoration
19.	Dentine Hyper sensitivity
20.	Trauma

*Topics may be changed as per need

VII. DEPARTMENTAL TIME TABLE

DAYS	OUTDOOR 8:00am-2:30 pm Supervision by on duty Post graduate trainee	INDOOR Clinical Registrar: Dr Nayaab Gilani, Dr Saira Waheed Academic Registrar: Dr Maham Anjum Clinical Registrar (Endo): Dr Hira Anjum Supervision by Post graduate Residents as allotted to each HO			
		8:00-10:00 AM	10:15-12:30 PM	12:30-2:00 PM	2:00-4:00pm
Monday	HO/PG	- Final year BDS Lecture - Clinical Registrar meeting - Clinical procedures of appointed patients by HOs/PGs	- Demo/ Clinical Supervision Final Year BDS (Restorative) - Clinical procedures of appointed patients by HOs/PGs - HO's Break (Half hour)	- Final year Tutorial - Clinical procedures of appointed patients by HOs/PGs	- Clinical procedures of indoor in patients
Tuesday	HO/PG	- Departmental Meeting - Journal Club seminar (PGs) - Clinical procedures of appointed patients by HOs/PGs	- Demo/ Clinical Supervision Final Year BDS (Restorative) - Clinical procedures of appointed patients by HOs/PGs - HO's Break (Half hour)	- Final year Tutorial - Clinical procedures of appointed patients by HOs/PGs	- Clinical procedures of indoor patients
Wednesday	HO/PG	- Final year BDS Lecture - Clinical procedures of appointed patients by HOs/PGs	- Final Year BDS Crown & Bridge/Endo/Paeds - Clinical procedures of appointed patients by HOs/PGs - HO's Break (Half hour)	- Final year Tutorial - Clinical procedures of appointed patients by HOs/PGs	- Clinical procedures of indoor patients
Thursday	HO/PG	- Final year BDS Lecture - Synopsis Discussion/ Clinical case presentations (PGs) - Endo clinic registrar meeting - Clinical procedures of appointed patients by HOs/PGs	- Final Year BDS Crown & Bridge/Endo/Paeds - Clinical procedures of appointed patients by HOs/PGs - HO's Break (Half hour)	- Final year Tutorial - Clinical procedures of appointed patients by HOs/PGs	- Clinical procedures of indoor patients
Friday	HO/PG	- Operative House surgeon's Seminar - Clinical procedures of appointed patients by HOs/PGs	- Demo/ Clinical Supervision Final Year BDS (Restorative) - Clinical procedures of appointed patients by HOs/PGs - HO's Break (Half hour)	- Final year Tutorial - Clinical procedures of appointed patients by HOs/PGs	- Clinical procedures of indoor patients

VIII. TEACHING AND LEARNING METHODOLOGIES

a. Large group teaching strategies:

- Lectures
- Interactive sessions

b. Small group teaching strategies:

- Employed during practicals (daily) and tutorials (daily)
- Interactive sessions
- Literature reading
- Video aids
- Small group discussions (SGDs)
- Viva voce
- Presentations by students
- Clinical demonstrations and practicals

IX. LEARNING RESOURCES

1. Sturdevant's Art and Science of Operative Dentistry:vTheodore M. Roberson, Herald O. Heymann, Edward J. Swift. (Latest edition)
2. Summitt's Fundamentals of Operative Dentistry- A Contemporary Approach (latest edition)
3. Endodontics: Principles and practice by Torabinjad. Richard E Walton, Mahmoud Torabinjad. (Latest edition)
4. T.R Pitt Ford, FJ. Harty: Hartysendodontics in clinical practice. (latest edition)
5. Contemporary fixed prosthodontics by Stephan R. Rosenthal, Latest edition.
6. Schilingburg et al. Fundamentals of fixed prosthodontics, Latest edition.
7. Inlays, Crowns & Bridges by George Kantorowicz, Latest edition.
8. Smith BGN. Planning and making crowns and bridges, latest edition.
9. McDonald and Avery's Dentistry for the Child and Adolescent
10. Pediatric Dentistry-Infancy to Adolescent by Pinkham, Casamassimo
11. Handbook of Pediatric Dentistry by Angus C Cameron, Richard P Widmer
12. Paediatric Dentistry by Richard R. Welbury

X. ASSESSMENT FORMATS

Each week of the month is allotted to each final year subject as test week. One class test is conducted each month for Operative dentistry. Topics included in each test are notified and resources are identified.

a. Written tests

Written class tests include MCQs (one best type) and SEQs. University recommendations for marks distribution are strictly followed. Summative and formative assessment will be done.

b. Clinical Test

It is held for each student during rotation in the Operative Department during 4th year BDS duties. Every clinical test will be followed by formative/ feedback assessment session. Every student will perform one filling and will appear in chair side viva. Grading will be based on viva / oral examination, chair-side manners, cross infection control (aseptic technique), operator and patient positioning and clinical technique / proficiency, History, diagnosis and treatment planning.

Results with feedback will be posted immediately after the clinical test.

c. Oral examination

In order to prepare the students for oral component of university examination, viva voce examinations (by senior faculty members) are also conducted during the session.

d. Send up examination

Send up is a comprehensive examination including whole Operative dentistry course that is conducted at the end of academic session and final university examination pattern is followed in every respect (no. of questions, ToS, marks distribution, total time allowed etc.).

e. Internal Assessment

Will be based upon written test, clinical tests, presentations, and hands on exercises & assignments and no of credits.

INSTRUCTIONS

"ALL STUDENTS MUST FOLLOW THE STANDARD PROTOCOL REGARDING CROSS INFECTION CONTROL IN THE CLINICS"

- Students should wear lab coats with neat dress.
- Students should follow the instructions from the teaching faculty.
- Students should report to the lab/clinics as per the scheduled time and should attend only in their respective groups.
- Students should keep their working table clean and do not damage any parts of the table. If any damage occurs, the particular student is responsible for the replacement of the damaged parts.
- Student should always maintain silence in the lab/clinics.
- Student should not leave any of their belonging after their session and if anything is lost, the college and the staff is not responsible.
- Attendance is compulsory. If anybody has shortage of attendance, appropriate action will be taken according to the college rules and regulations.
- Demonstrations will not be repeated for absent student regardless of reason of absence

XI. ROBUST FEEDBACK SYSTEMS

a. Feedback on attendance

Attendance report is forwarded to students and parents on daily basis

b. Feedback on academic performance

Academic performance report is also regularly forwarded to students and parents. Moreover, individual students are given feedback on their academic performance during tutorials. MCQ and SEQ papers are also discussed with students in small groups.

c. Parents of weak students are regularly contacted (PTM sessions)

XII. REMEDIAL CLASSES

Remedial classes will be carried out as for students who:

1. Have poor attendance less than 75%
2. Less than 50% in test performance

They will be scheduled every Wednesday from 1:30-2:30 pm.