



DENTAL COLLEGE HITEC-IMS
Study Guide Y4 - T2 - D26
Term 2
Final Year BDS
Coordinator: Dr. Muhmmad Hasnain

NUMS Vision

The vision of the National University of Medical Sciences is to improve the quality of life through education, research, innovation, and healthcare, thereby contributing to endeavors to make Pakistan and this world a better place to live in.

Institutional Vision

Leading advancement in Oral & Dental health through excellence
in education, patient care and research

Institutional Mission

To serve the local and global communities by producing competent, ethical, socially responsible, research oriented and lifelong learning oral health care professionals



PROGRAM OUTCOMES

Code	Outcome Statement (Graduate will be able to...)	Keywords
PO1	Manage common oral diseases using safe and evidence-based practices.	Diagnosis · Treatment · Safety
PO2	Identify patients requiring referral for specialized oral and dental treatment.	Triage · Scope of Practice · Networks
PO3	Advocate preventive measures against common oral and dental disease.	Prevention · Risk Reduction · Health Promotion
PO4	Demonstrate professional, ethical, and culturally appropriate behavior.	Ethics · Altruism · Cultural Sensitivity
PO5	Engage in lifelong learning for continuous professional development.	CPD · Reflective Practice · Growth
PO6	Demonstrate effective verbal and written communication skills.	Counselling · Documentation · Clarity
PO7	Demonstrate basic skills to conduct research on common oral and dental issues.	Research Literacy · Audit · Inquiry
PO8	Work in healthcare teams and provide leadership when required.	Teamwork · Leadership · Collaboration



Curricular organization of the BDS program

BDS Year 1 (Integrated)	BDS Year 2 (Integrated)	BDS Year 3	BDS Year 4
SUBJECTS			
Anatomy Physiology Biochemistry Oral Biology	Community Dentistry Dental Materials General Pathology Pharmacology Preclinical Operative Dentistry Preclinical Prosthodontics	General Surgery General Medicine Periodontology Oral Medicine Oral Pathology Oral & Maxillofacial Surgery Operative dentistry Prosthodontics	Operative Dentistry & Endodontics Pediatric Dentistry Prosthodontics Oral & Maxillofacial Surgery Orthodontics
Pakistan Studies and Islamiat Fahimul Quran			
Clinical Photography Videography, Expository Writing	EOTO ICT		
LONGITUDINAL THREADS			
Behavioral Sciences			
Research/ICT			

Introduction to the Study Guide:

Dear Students,

This study guide has been developed and updated by the faculty and the Department of Dental Education HITEC-IMS especially for you. This booklet is an aid to:

- Inform you about this part of curriculum and its organization.
- Help you organize and manage your studies throughout the module.
- Guide you on assessment methods, rules and regulations.
- Communicate information on management of the module. This will help you to contact the right person in case of any difficulty.
- Define the objectives which are expected to be achieved at the end of the module.
- Identify the learning strategies such as lectures, small group discussions, clinical skills, demonstrations, tutorials and case-based learning activities that will be implemented to achieve the module objectives.
- Provide a list of learning resources such as books, and journals for students to consult in order to maximize their learning.

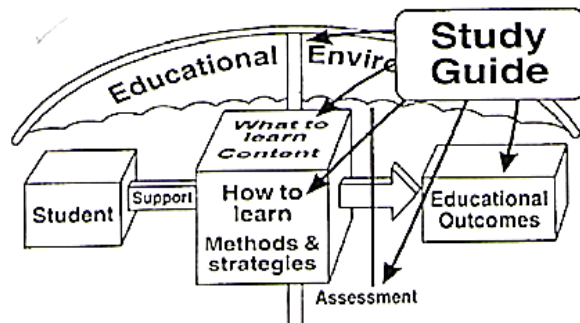


Figure 1. Objectives of the study Guide (HARDEN, J.M. LAIDLAW, E.A. HESKETH, 1999)



Term Committee



Block

Dr. Muhammad Hasnain

Assistant Professor, Orthodontics. Email ID: muhammadhasnain.dental@hitec-ims.edu.pk

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Blocks Organization BDS Year 4

CLASS OF 2026 (YEAR 4)																															
Year Coordinator: Prof. Dr. Beenish Qureshi																															
February		March			April			May		June		July		August		September			October		November	December			January		February				
9th	10th	15th	16th-18th	24th	12th	13th-19th	20th	17th	18th-24th	25th	7th	8th		13th	14th	15th	6th	7th-13th	14th			6th	7th-13th	14th-20th	21st	1st	2nd	1st	2nd onwards		
Orientation	Term 1 (13 Weeks)											Term 2 (14 Weeks)							Term 3 (13 Weeks)							Send-up Leave	Pre-Annual Exam	Pre-Prof Leave	Final Professional Exams		
	Overview of Clinical Sciences											Practice Based Learning							Clinical Diagnosis and Management												
	Block 1		Eid ul Fitar		Block 1 Continued		Sport. Week	Block 1 Continued		1ST Block Exam	Eid Ul Adha/ Summer Vacations		Block 2			Independence Day	Block 2 Continued		2nd Block Exam		Block 3									3rd Block Exam	
	9th Feb	15th March	13rd March	12th April		20th April	3rd May	4th May	14th May	8th June	21st June	22nd June	16th July	27th July		23rd Aug	14th Aug	20th Sep	21st Sep	18th Oct	19th Oct	15th Nov	16th Nov	13th Dec							
	Operative Dentistry (Batch A), Prosthodontics (Batch B), Orthodontics (Batch C), OMFS (Batch D)		Prosthodontics (Batch A), Orthodontics (Batch B), OMFS (Batch C), Operative Dentistry (Batch D)				Orthodontics (Batch A), OMFS (Batch B), Operative Dentistry (Batch C), Prosthodontics (Batch D)				OMFS (Batch A), Operative Dentistry (Batch B), Prosthodontics (Batch C), Orthodontics (Batch D)		Operative Dentistry (Batch A), Prosthodontics (Batch B), Orthodontics (Batch C), OMFS (Batch D), Paedodontics (Batch E)		Prosthodontics (Batch A), Orthodontics (Batch B), OMFS (Batch C), Paedodontics (Batch D), Operative Dentistry (Batch E)		Orthodontics (Batch A), OMFS (Batch B), Paedodontics (Batch C), Operative Dentistry (Batch D), Prosthodontics (Batch E)		OMFS (Batch A), Paedodontics (Batch B), Operative Dentistry (Batch C), Prosthodontics (Batch D), Orthodontics (Batch E)		Paedodontics (Batch A), Operative Dentistry (Batch B), Prosthodontics (Batch C), Orthodontics (Batch D), OMFS (Batch E)										
Behavioural Sciences & Research																															



Academic Calender Year 4

	DENTAL COLLEGE HITEC – INSTITUTE OF MEDICAL SCIENCES
	RECORD FORMAT
	ACADEMIC CALENDAR

Final Year BDS Session – 2026/27

Duration : 40 weeks

Academic Event	Duration
Commencement of New Academic Year	9 th February 2026
Orientation day	9 th February 2026
FIRST TERM (13 Weeks)	
Academics 05/13 Weeks	9 th February 2026 to 15 th March 2026
Eid ul Fitr (1 Week)	16 th March 2026 to 22 nd March 2026
Academics 03/13 Weeks	23 rd March 2026 to 12 th April 2026
Sport week	13 th April 2026 to 19 th April 2026
Academics 04/13 Weeks	20 th April 2026 to 17 th May 2026
1 st Term exam 01/13	18 th May 2026 to 24 th May 2026
Eid ul Adha + Summer Vacations (2 Week)	25 th May 2026 to 7 th June 2026
SECOND TERM (14 Weeks)	
Academics 02/14 Weeks	8 th June 2026 to 19 th June 2026
Summer Vacation (1 week)	20 th June 2026 to 28 th June 2026
Academics 11/14	29 th June 2026 to 13 th September 2026
2 nd Term Exam 01/14	14 th September 2026 to 20 th September
THIRD TERM (13 Weeks)	
Academics 12/13 Weeks	21 st September 2026 to 13 th December 2026
3 rd Term Exam 01/13	14 th December 2026 to 20 th December 2026
Leaves Pre Prof (1 Week)	21 st December 2026 to 27 th December 2026
Send up / Pre Prof-Exam (2 Weeks)	28 th December 2026 to 08 th January 2027
Prep Leaves for Prof (3 Weeks)	09 th January 2027 to 1 st February 2027
Final Professional Exam	2 nd February 2027 as proposed by NUMS


 Coordinator Final Year BDS

Document Code	Version No	Date	Page
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Alignment of Course Outcomes with Program Outcomes (POs)

Sr. No	Course Outcome (Y4-T2)	Mapped POs	Alignment Description
1	Correlate etiology of dento-alveolar trauma with application of knowledge, interception & long-term management	PO1, PO2, PO3, PO4, PO6	Supports disease management, referral identification, prevention, ethical practice, and communication
2	Apply concepts of occlusion using biomechanics for treatment planning and space management	PO1, PO2, PO4, PO6, PO8	Focuses on clinical management, referrals, professionalism, communication, and teamwork
3	Correlate clinical presentation of dentate & edentulous patients with endodontic and prosthetic management	PO1, PO2, PO4, PO6, PO8	Ensures evidence-based care, referral decisions, ethical practice, communication, and teamwork
4	Apply knowledge of oral & perioral structures to investigate and surgically manage oral pathologies	PO1, PO2, PO4, PO5, PO7	Involves disease management, referral, ethical care, lifelong learning, and research application



Yearly Clinical Rotation Schedule FINAL YEAR BDS SESSION 2026 1ST ROTATION PLAN

DEPARTMENT	Operative Dentistry	Prosthodontics	Orthodontics	OMFS
09-02-26 - 15-03-26	A	B	C	D
16-03-26 – 22-03-26	Eid –ul-Fitr Holidays			
23-03-26 – 12-04-26	D	A	B	C
13-04-26 – 19-04-26	Sport Week			
20-04-26 – 03-05-26	D	A	B	C
04-05-26 – 24-05-26	C	D	A	B
25-05-26 – 07-06-26	Eid –ul-Azha			
08-06-26 – 19-06-26	C	D	A	B
20-06-26 – 28-06-26	Summer Vacations			
29-06-26 – 08-08-26	B	C	D	A

GROUPS DISTRIBUTION:

Group: A = Roll no: 200 – 212

Group: B = Roll no: 213 – 223

Group: C = Roll no: 224 – 234

Group: D = Roll no: 235 – 248 & 125



2ND ROTATION PLAN

DURATION	21 st July –07 th December (04 weeks each) ---- Departments.				
DEPARTMENT	Operative Dentistry	Prosthodontics	Paedodontics	OMFS	Orthodontics
03-08-26 – 30-08-26	A	B	C	D	E
31-08-26 – 27-09-26	E	A	B	C	D
28-09-26 – 25-10-26	D	E	A	B	C
26-10-26 – 22-11-26	C	D	E	A	B
23-11-26 – 20-12-26	B	C	D	E	A

GROUPS DISTRIBUTION:

<u>Group: A</u> = Roll no: 200 – 209
<u>Group: B</u> = Roll no: 210 – 218
<u>Group: C</u> = Roll no: 219 – 227
<u>Group: D</u> = Roll no: 228 – 236
<u>Group: E</u> = Roll no: 240 – 248 & 125



Teaching And Learning Methodologies:

The following teaching/ learning methods are used to promote better understanding:

Educational Opportunities

Hospital Wards
Dental Clinics

Practical

Basic medical sciences practical related to Anatomy, Biochemistry, and Physiology are scheduled for firsthand learning of skills

Large Group Interactive Sessions - LGIS

In large group, the lecturer introduces a topic or common clinical condition and explains the underlying phenomena through questions, pictures, videos of patient's interviews, exercises, etc. Students are actively involved in the learning process.

Case-Based Learning - CBL

This is a small group discussion format where learning is focused around a series of questions based on a clinical scenario. Students discuss and answer the questions applying relevant knowledge gained in clinical and basic health sciences during the block.

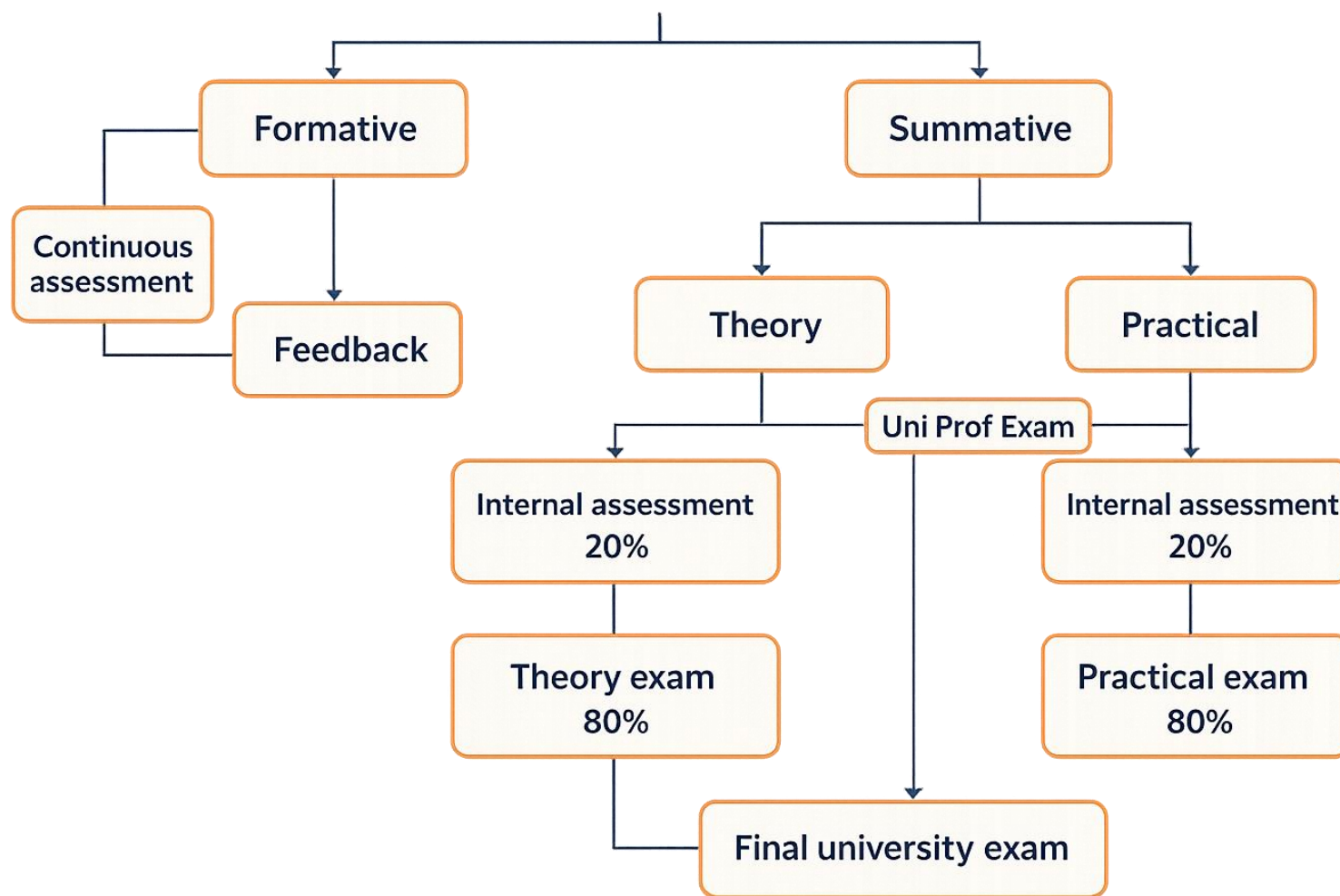
Self-Directed Study - SDL

Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students will be provided time within the scheduled college hours for self-study.

Small Group Discussion - SGD

This format helps students to clarify concepts, acquired skills, attitudes and achieve objectives for that particular session. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self-study. The facilitator's role is to ask probing questions, summarize, or rephrase to help clarify and correlate integrated concepts.

Assessment Map





Structured Summary – Block II

Term Code	Y4-T2-D26
Term Title	Practice Based Learning
Duration Of Term	14 weeks
Important Dates	7 th September, 2026 - 11 th September, 2026.
Horizontally Integrated Themes	I.Dental Traumatology II.Surgical Endodontics III.Space Management
Vertically Integrated Themes	• Research Methodology • Behavior sciences
Prerequisite Blocks	1 st Block Final Year



Introduction to the Block II

Block 2 of the Final Year BDS curriculum is a 14-week integrated clinical block designed to enhance students' competence in the diagnosis, prevention, and management of complex dental conditions. The block is structured around three major themes: **Dental Traumatology, Surgical Endodontics, and Space Management**, which address important clinical challenges frequently encountered in contemporary dental practice.

The block adopts a **horizontally integrated** approach, bringing together knowledge and clinical skills from **Operative Dentistry, Pediatric Dentistry, Oral and Maxillofacial Surgery, Orthodontics, and Prosthodontics**. This integration enables students to develop a comprehensive understanding of patient care by correlating concepts across disciplines and applying them in clinical settings. Through case-based discussions, clinical demonstrations, and supervised patient management, students are encouraged to develop critical thinking, clinical reasoning, and evidence-based decision-making skills.

In addition to horizontal integration, the block incorporates **vertical integration** through **Research and Behavioral Sciences**, which are embedded throughout the learning experience. Students are expected to apply research principles in evaluating current evidence, while behavioral sciences contribute to the development of effective communication, professionalism, ethics, patient-centered care, and teamwork.

Clinical rotations form a major component of the block and provide opportunities for students to manage patients under supervision in diverse clinical environments. These rotations facilitate the application of theoretical knowledge to real-life clinical scenarios and help students achieve the competencies required for independent practice.

Goodluck students

ICONS, CODES & HIGHLIGHTING KEY

ITEM	MEANING		PURPOSE (BRIEF)
LGIS	Large Group Interactive Session		Interactive lecture with active student participation
CBL	Case-Based Learning		Small group discussion using clinical scenarios
SGD	Small Group Discussion		Concept clarification through guided discussion
SDL	Self-Directed Learning		Independent student learning
	Vignette (Clinical Scenario)		Short patient case used to apply knowledge clinically
	Red Text	Behavioural Sciences	Communication, ethics, professionalism, empathy
	Green Text	Patient Safety	Safety protocols, infection control, risk prevention
	Learning Icon	Learning Objective	Key competency students must achieve
	Clinical Icon	Clinical Skill	Hands-on skills during rotations



Tentative Class Test Schedule (Term 2)

DATE	SUBJECT
15-07-2026	Prosthodontics
20-07-2026	Orthodontics
28-07-2026	OMFS
05-08-2026	Pedodontics
10-08-2026	Operative Dentistry



OPERATIVE DENTISTRY

TOPIC

LEARNING OBJECTIVES

Session – 1 Introduction to endodontics		Mode of Delivery: LGIS
 You should be able to	• Define endodontics • Describe Scope of endodontics • Define rationale for treatment • Describe objective of endodontic treatment	
Session – 2,3&4 Tooth morphology & access cavity preparation		Mode of Delivery: LGIS
 You should be able to	• Define objectives and guidelines for access opening • Discuss individual tooth access cavity preparation with proper armamentarium • Describe the etiology & management of errors during access cavity preparation	



Session – 5&6 Preparation of radicular pulp space		Mode of Delivery: LGIS
 be able to	• Enumerate techniques for working length determination • Describe the rationale for chemo-mechanical preparation of canals • Define cleaning and shaping techniques	
Session – 7 Intracanal medicaments		Mode of Delivery: LGIS
 You should be able to	• Describe the role of intra canal medicaments	
Session – 8&9 Irrigants and antiseptics		Mode of Delivery: LGIS & CHAIR SIDE
 You should be able to	• Describe the use of Irrigants along with different techniques for irrigation	



Session – 10,11&12 Obturation		Mode of Delivery: LGIS
 You should be able to	• Define obturation • Rationale for obturation Armamentarium • Enlist Types of sealer and core materials • Enumerate Ideal properties of sealers & core materials • Enlist & explain different obturation techniques • Describe advantages and limitations of different techniques	
Session – 13 Endo perio lesions		Mode of Delivery: LGIS
 You should be able to	• Enlist pathways of communication between the dental pulp and periodontium • Recall different types and clinical features of endoperio lesion • Diagnose endoperio lesions on the basis of signs and symptoms and radiographic interpretation • Give the DD of endo-perio lesions Manage patients with endo perio lesions	
Session – 14&15 Failure in endodontics		Mode of Delivery: LGIS



You should be able to

- Differentiate between successful & unsuccessful endodontic treatment
- Enlist the causes of endodontic failure
- Describe each cause of failure in detail
- Demonstrate the management & preventive strategies for endodontic failure cases

Session-16

Endodontic emergencies

Mode of Delivery:
LGIS



You should be able to

- Define & categorize different endodontic emergencies
- Enlist diagnosis & treatment plan for endodontic emergencies
- Discuss Pretreatment enter appointment & post obturation emergencies
- Demonstrate a sequential approach for prevention & management of Endodontic Emergencies

Session-17

Surgical endodontics

Mode of Delivery:
LGIS



You should be able to

- Define endodontic surgery
- Enlist different surgical endodontic treatment modalities
- Discuss the procedure of incision for drainage
- Recall importance of biological aspects of the oral and peri-oral structures

Session-18

Surgical endodontics

Mode of Delivery: LGIS



You should be able to

- Discuss the procedure of incision for drainage
- Recall the importance of biological aspects of the oral and peri-oral structures

Session -19

Geriatric endodontics

Mode of Delivery:
LGIS



You should be able to

- Describe clinical considerations in a geriatric patient
- Describe management of root canal treatment, restoration, retreatment and surgical cases in geriatric patients

Session-20,21&22

Restoration of endo treated teeth

Mode of Delivery:
LGIS SGD, CHAIRSIDE



You should be able to

- Define the structural and esthetic considerations for root filled teeth
- Describe different types of posts
- Outline the restoration design of teeth
- Describe the treatment plan for restoration of endodontically treated teeth

Session -23&24

Root resorption

Mode of Delivery:
LGIS SGD, CHAIRSIDE



You should be able to

- Diagnose internal & external resorption on basis of clinical and radiographic findings
- Describe the treatment plan and treatment option for resorption

Session-25&26

Non odontogenic toothache

Mode of Delivery:
LGIS SGD, CHAIRSIDE



You should be able to

- Describe the diagnosis, mechanism & versatility of orofacial pain
- Differentiate between superficial & deep pain
- Classify orofacial pain
- Describe the diagnostic procedures for non-odontogenic toothache

Session -27

Trauma

Mode of Delivery:
LGIS, SGD, CHAIRSIDE



You should be able to

- Classify & identify dental traumatic injuries
- Describe immediate and long-term management of dental traumatic injuries

Total no of sessions	Mode of Assessment
27	(SAQs, MCQs, VIVA)

PAEDIATRIC DENTISTRY

Session -1,2&3 Pulp therapy in primary and young permanent teeth		Mode of Delivery: LGIS
 You should be able to	• Identify clinical and radiographic signs of pulp involvement, including pulp exposure, pulpitis, and periapical pathology. • Learn the indications and contraindications for pulpotomy and pulpectomy in primary teeth with reversible pulpitis. • Understand the different techniques and materials used for pulpotomy and pulpectomy • Learn the apexification technique, • Understand apex genesis • Perform a comprehensive and accurate clinical examination of primary and young permanent teeth. Apply appropriate diagnostic tests, such as pulp vitality tests, percussion tests, and thermal sensitivity tests	
Session – 4&5 Pulp therapy in young permanent teeth		Mode of Delivery: LGIS



You should be able to

- Identify clinical and radiographic signs of pulp involvement, including pulp exposure, pulpitis, and periapical pathology.
 - Learn the indications and contraindications for pulpotomy and pulpectomy
 - Understand the different techniques and materials used for pulpotomy and pulpectomy
 - Learn the apexification technique,
 - Understand apexogenesis
 - Apply appropriate diagnostic tests, such as pulp vitality tests, percussion tests, and thermal sensitivity tests.
- Plan and schedule appropriate follow-up and recall appointments to monitor the healing and long-term success of pulp therapy.

Session -6&7
Space management and space maintainers

Mode of Delivery: LGIS



You should be able to

- Define space maintainers and explain their role in paediatric dentistry.
- Describe the types and classifications of space maintainers used for different clinical scenarios.
- Perform a comprehensive oral examination to identify the need for space maintainers
- Identify the indications and contraindications for space maintainer placement.
- Implement evidence-based approaches to space management in real-world clinical scenarios.
- Assess the space requirements and select the appropriate type of space maintainer

Session – 8,9,10,11,12&13
Dental trauma to primary and young permanent teeth

Mode of Delivery: LGIS



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You should be able to

- Define and classify common types of traumatic dental injuries (TDIs) in primary teeth (e.g., luxation, avulsion, crown fractures).
- Recognize and differentiate between different types of dental trauma in clinical scenarios and radiographs.
- Formulate a diagnosis and treatment plan for different types of traumas in primary teeth based on IADT guidelines.
- Define and classify common types of traumatic dental injuries (TDIs) in permanent teeth (e.g., luxation, avulsion, crown fractures).
- Define the etiology, clinical features, and radiographic findings of common traumatic injuries to permanent teeth.
- radiographic examination for a patient presenting with dental trauma.
- Management of different traumatic injuries affecting the young permanent dentition
- Interpret radiographs and clinical signs to arrive at an appropriate diagnosis of dental trauma cases.
- Management of different traumatic injuries affecting the young permanent dentition
- Formulate an evidence-based treatment plan using IADT guidelines for managing traumatic dental injuries such as luxation, avulsion, and crown fractures.
- Management of avulsion

Total no of sessions	Mode of Assessment
13	(SAQs, MCQs, OSCE VIVA)

PROSTHODONTICS

Session – 1&2 Materials used in the management of edentulous patients		Mode of Delivery: LGIS, Flip Classroom
 You should be able to	• Describe non-elastic and elastic impression materials • Describe disinfection protocols for various impression materials • Describe polymeric denture base material • Describe injection molding technique • Explain the significance of modified denture base material • Describe material used in the fabrication of prosthetic teeth • Compare the properties of porcelain and resin teeth • Describe denture lining materials • Enlist indication of tissue conditioners • Describe cast metal alloys used as denture-based materials • Enlist indication and contraindications for denture adhesives • Describe adverse reactions to denture adhesives • Describe factors that contribute to the retention of dentures	
Session – 3,4,5&6 Maxillary and Mandibular substitutes for denture bearing area		Mode of Delivery: LGIS, SGD, Clinical Demonstrations



You should be able to

- Name maxillary and mandibular stress bearing areas
- Describe the supporting structures in maxilla and mandible
- Describe limiting structures in maxilla and mandible
- Enumerate objectives of impression making
- Describe preliminary impressions with respect to tray selection, material choice and technique
- Describe secondary impressions with respect to tray selection, material choice and technique
- Describe theories of impression making
- Describe the objectives and sequence of border molding
- Define posterior palatal seal area
- Describe various methods used to record posterior palatal seal area
- Define boxing of an impression
- Define dental cast
- Differentiate between various types of dental casts
- Describe the method for fabrication of custom tray

Session – 7,8&9
Denture's polished surfaces

Mode of Delivery:
LGIS, Clinical Demonstration



You should be able to

- Define various parts and surfaces of dentures
- Describe the method for fabrication of record bases
- Define neutral zone
- Explain the significance of neutral zone in complete dentures
- Define jaw relations
- Describe various methods used to record vertical and horizontal jaw relations
- Define vertical dimensions of rest, vertical dimension of occlusion and interocclusal distance
- Define Centric relation
- Describe significance of centric relation in jaw relation record
- Enlist effects of increased and decreased vertical dimensions of occlusion
- Classify articulators
- Enumerate advantages and disadvantages of semi adjustable articulators
- Differentiate between ARCON and NON-ARCON articulators
- Describe programming of an articulator



	• Define Facebow • Describe the procedure for recording orientation relation using a facebow • Enlist advantages and indications of facebow
Session – 10,11, &12 Selection and arrangement of Prosthetic teeth	Mode of Delivery: LGIS, SGD, CLINICAL DEMONSTRATION.
 You should be able to	• Describe various theories for selection of artificial teeth • Enlist landmarks for complete denture teeth setup • Describe anterior tooth setup for maxilla and mandible • Describe posterior tooth setup for maxilla and mandible • Explain various occlusal concepts for complete denture occlusion
Session – 13 The Try-in Appointment	Mode of Delivery: LGIS & CHAIR SIDE
 You should be able to	• Describe the steps involved in Denture try-in



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Session – 14&15

Prosthesis insertion and follow-up appointment

Mode of Delivery:

LGIS SGD, CLINICAL DEMONSTRATION



You should be able to

- Describe protocol for denture insertion
- Enlist indication for use of pressure indicating paste
- Describe various patterns observed while reading pressure indicating paste
- Enlist post insertion instructions provided to patient about denture care
- Describe occlusal equilibration using BULL rule
- Describe protocol for follow-up appointment for complete denture patient

Session – 16

Single Denture

Mode of Delivery:

LGIS.



You should be able to

- Define single denture
- Describe diagnosis and treatment planning for single dentures
- Describe possible complications associated with single dentures and their management

Session – 17&18

Overdentures

Mode of Delivery:

LGIS



 You should be able to	• Enlist patient signs and symptoms that frequently preclude an adaptive complete denture experience • Define overdentures • Enlist advantages and disadvantages of overdentures • Enumerate indications and contraindications for overdentures • Describe the criteria for selection of teeth as overdenture abutments • Describe the preparation of overdenture abutments to enhance retention • Describe long-term complications associated with overdenture abutments
Session – 19&20 Immediate dentures	Mode of Delivery: LGIS
 You should be able to	• Define immediate dentures • Differentiate between various types of immediate dentures • Enumerate advantages and disadvantages of immediate denture treatment • Enlist indication and contraindications to immediate denture treatment • Describe treatment planning protocol for providing an immediate denture • Describe immediate and long-term post-operative care in an immediate denture case
Session-21&22 Life span of complete dentures	Mode of Delivery: LGIS.
 You should be able to	• Differentiate between relining and rebasing • Enlist indications for relining and rebasing • Describe clinical procedures for relining • Describe the physical stages tissue conditioner goes through during setting • Discuss materials available for relining and rebasing • Describe various procedures involved in denture repair • Define copy dentures



	Describe steps involved in fabrication of copy dentures
Session-23 Speech consideration with complete dentures	Mode of Delivery: LGIS
 You should be able to	- Describe various sounds that may be effected by teeth position - Describe prosthetic considerations in diagnosing and managing speech problems
Session-24 Introduction to removable partial denture	Mode of Delivery: LGIS
 You should be able to	- Define partial denture - Differentiate between cast partial and acrylic partial denture - Enumerate components of cast partial denture - Define Retention, support and stability - Enumerate objectives of prosthodontic treatment - Enlist indications for removable partial dentures - Enlist steps involved in diagnosis of a patient prosthodontic treatment option - Describe factors that affect prosthesis selection - Enlist the available prosthodontic treatment options



Session-25 Clasp retained partial denture		Mode of Delivery: LGIS
 You should be able to	• Differentiate between tooth supported and tooth and tissue supported partial dentures • Describe six phases of partial denture service • Enlist reasons of failure of clasp retained partial denture	
Session-26 Partially edentulous arches		Mode of Delivery: LGIS
 You should be able to	• Enumerate requirements of an acceptable classification method • Describe Kennedy's classification • Enlist Applegate's rule • Describe advantages and drawbacks of Kennedy's classification	
Session-27 Biomechanics of Removable Partial Denture		Mode of Delivery: LGIS
 You should be able to	• Describe possible movements of a partial denture and various components that counter these movements.	



College of Medicine & Health Sciences

Session-28,29,30&31

Components of Removable Partial dentures

Mode of Delivery:

LGIS



You should be able to

- Describe principles for design and location of connectors
- Describe indications, contraindications and characteristics of various maxillary and mandibular major connectors
- Define minor connectors
- Describe function, form and location of minor connector.
- Define tissue stops and their functions
- Define rest and rests seats
- Classify rests
- Enlist advantages of rests
- Describe the outline form of an occlusal rest and rest seat
- Describe various forms of rests in detail

Total no of sessions	Mode of Assessment
31	(SAQs, MCQs, OSCE VIVA)

ORTHODONTICS



Session – 1&2
Diagnosis of malocclusion

Mode of Delivery: LGIS



You should be able to

- Perform a systematic orthodontic clinical examination for assessment of malocclusion in a patient
- Interpret orthodontic diagnostic records including photographs, study models and radiographs
- Develop a problem list for an orthodontic patient following comprehensive examination

Session –3,4,5,6&7
Metabolic basis of Orthodontic Tooth Movement

Mode of Delivery: LGIS, SGD



You should be able to

- Discuss different tissue changes involved in orthodontic tooth movement
- Describe the theories of orthodontic tooth movement
- Explain the effects of different drugs on tooth movement.
- Describe the methods to accelerate orthodontic tooth movement
- Appraise the deleterious effects of orthodontic tooth movement on periodontium

Session –8&9
Biomechanical principles in Orthodontics

Mode of Delivery: LGIS



You should be able to

- Understand the basic concepts of orthodontic biomechanics
- Differentiate different types of tooth movement and forces



Session –10&11
Anchorage

Mode of Delivery: [LGIS](#)



You should be able to

- Define anchorage and explain its different types
- Describe the methods used to enhance the anchorage

Session –12&13
Class I Malocclusion Management

Mode of Delivery: [LGIS](#)



You should be able to

- Identify the features of Class I malocclusion
- Formulate a management plan of Class I malocclusion

Session –14&15
Class II malocclusion Management

Mode of Delivery: [LGIS, CPC](#)



You should be able to

- Distinguish Class II Div 1 and Div 2 malocclusion
- Design a management plan of patients with Class II malocclusion



Session –16
Class III malocclusion

Mode of Delivery: **LGIS**



You should be able to

- Describe the management of Class III malocclusion

Session –17
Cross bite management

Mode of Delivery: **LGIS**



You should be able to

- Construct management plan of patients with crossbite

Session –18
Arch Expansion

Mode of Delivery: **LGIS, SGD**



You should be able to

- Apply the use of different expansion appliances in Cross bite management



Session –19
Open bite management

Mode of Delivery: [LGIS](#)



**You should be
able to**

- Discuss the management of open bite.

Session –20
Deep bite management

Mode of Delivery: [LGIS](#)



**You should be
able to**

- Discuss the management of deep bite.



Session –21-26

Protocols used during mixed dentition

Mode of Delivery: **SGD, CBL**

Vignette:



A 10-year-old boy accompanied with his father comes to the Orthodontic department with the chief complaint that his front teeth don't meet. History taking of the patient reveals persistence of the thumb sucking habit. The intraoral examination of the patient shows proclined upper incisors along with presence of anterior open bite of 8mm.





You should be able to

- Describe the important considerations involved in mixed dentition treatment Apply the principles of management of posterior and anterior crossbite in mixed dentition
- Identify the effects of thumb sucking in a patient and design its management
- Discuss the management of different eruption problems observed in mixed dentition
- Describe the indications of space maintenance
- Apply the use of different space maintainers in mixed dentition
- Discuss the management of ankylosis of deciduous molars in two different situations.
- Describe Primary failure of eruption, its etiology, features and management options
- Apply the principles of management of different space related problems encountered in mixed dentition

Total no of sessions	Mode of Assessment
26	(SAQs, MCQs, OSCE VIVA)

OMFS:

Session –1,2&3 TRAUMA (DENTO-ALVEOLAR FRACTURES)

Mode of Delivery: LGIS, PBL



- Describe Facial soft tissue and Dento-alveolar injuries
- Classify dento-alveolar and soft tissue injury
- define abrasion, contusion, laceration and diagnose these injuries by history and clinical examination
- state and relate etiology (name 3 causes) of maxillofacial (hard and soft tissue) & dento-alveolar trauma
- evaluate dento-alveolar trauma by history, clinical and radiological examination
- manage dento-alveolar injuries and keep up to date with current guidelines



You should be able to	• Respect patients • Acquire Comprehensive History • Acquire Informed Consent
Session -4&5 MID-FACE, NOE & ZMC FRACTURES	Mode of Delivery: LGIS
 You should be able to	• Classify mid face fractures (Lefort I, II & III) • Discuss principles of management of Lefort fractures • Discuss principles of management of fractures of zygomatic bone, arch, frontal bone and NOE complex. • enlist complications of mid and upper face fractures
Session –6&7 FIRE ARM INJURY	Mode of Delivery: LGIS
 You should be able to	• Describe considerations in the management of pediatric and geriatric maxillofacial trauma. • Describe principles of management of fire arm injuries involving the face.
Session –8&9 BIOPSY	Mode of Delivery: LGIS



You should be able to

- Describe the adjuncts to clinical screening of suspicious lesions.
- State the indications of biopsy and describe each type of soft and hard tissue biopsy
- Describe principles of Biopsy
- Describe methods of specimen orientation

Session –10&11 **JAW CYSTS**

Mode of Delivery: [LGIS](#)



You should be able to

- classify jaw cysts (odontogenic and non – odontogenic)
- Differentiate between radicular, dentigerous and keratocyst.
- State the indications, advantages, disadvantages and techniques for the management of jaw cysts and cyst-like lesions i.e.: enucleation, marsupialization, enucleation followed by marsupialization, enucleation with Curettage

Session –12&13 **JAW TUMOUR**

Mode of Delivery: [LGIS](#)



You should be able to

- Describe the management of jaw tumors based on the types of resections: marginal, segmental, partial, total, and composite.
- describe the management of benign soft tissue tumors
- describe the management of potentially malignant (pre-malignant) lesions
- Describe the management of malignant tumors of the oral cavity according to the following factors:
 - i. Histopathology
 - ii. Grade and extracapsular spread.
 - iii. TNM staging.
- state the general principles of OMF reconstruction
- describe the biology of bone reconstruction and define osteo- induction, osteo-conduction, osteo-promotion and osteo-genesis
- classify bone grafts on the basis of source and vascularity



Session – 14&15

MAXILLARY SINUS DISEASE

Mode of Delivery: **LGIS, SGD**



You should be able to

- Evaluate a patient with maxillary sinus disease
- describe odontogenic and non- odontogenic infections of maxillary sinus and their differential diagnoses
- Describe treatment of sinusitis
- Classify Oro-antral communication according to size and describe their management according to the time elapsed.
- enlist the common maxillary sinus tumors of odontogenic and non-odontogenic origin, and describe their management
- Describe difference between oro-antral communication and fistula and their management
- Describe post-operative sinus precautions

Session –15&16

SURGICAL ENDO-DONTICS

Mode of Delivery: **LGIS**



You should be able to

- Evaluate a patient with a periapical pathology and order and interpret relevant investigations.
- discuss indications for surgical endodontic procedures
- List contraindications for surgical endodontics
- select appropriate procedure, flap, technique and (root-end filling) materials for surgical endodontics.

Session – 17

MANAGEMENT OF PATIENTS UNEDRGOING RADIATION THERAPY & MRONJ

Mode of Delivery: **LGIS**



You should be able to

- State the mechanism of action of radiotherapy, regimes of radiotherapy and list its adverse oral effects.
- Describe the dental management of a patient undergoing radiotherapy to the OMF region.
- Define osteoradionecrosis. Describe its stages and management plan.
- State the dental management of a patient undergoing systemic chemotherapy.
- Define MRONJ.
- State the management of a patient at risk of MRONJ needing dental extraction

Session –18

ODONTOGENIC INFECTIONS: etiology

Mode of Delivery: LGIS



You should be able to

- Discuss factors (host, micro-organisms, anatomical) that govern the spread of odontogenic infections)
- SKILL**
- Evaluate a patient with an odontogenic or maxillofacial infection order and interpret relevant investigations
- ATTITUDE**
- Respect patients
 - Acquire Comprehensive History
 - Acquire Informed Consent

Session – 19&20

FACIAL SPACES

Mode of Delivery: LGIS



- Diagnose and differentiate between edema (inoculation), cellulitis and abscess
- Ascertain the severity of disease condition and identify the indications of hospital admission
- Describe anatomical Fascial spaces in head & neck (boundaries and contents) which may get involved by spread of Odontogenic infections



You should be able to

Session –21
pathophysiology & management

Mode of Delivery: LGIS



You should be able to

- Describe spread, pathophysiology & management of following infections in head and neck
 - a) Odontogenic infection to primary and secondary facial spaces.
 - b) Cavernous sinus thrombosis/orbital cellulitis.
 - c) Mediastinitis, Ludwig’s angina, Osteomyelitis, candida-sis, necrotizing fasciitis, actinomycosis
- SKILL**
 - Formulate management plan for odontogenic infections under following principles
 - a) Remove the etiology.
 - b) Surgically drain pus and insert drains, if indicated.
 - c) Provide supportive therapy: select appropriate antibiotic and manage airway, nutrition, and hydration.
 - d) Select and prescribe appropriate antibiotic(s) for odontogenic infections
 - Refer, when indicated
- ATTITUDE**
 - Respect patients
 - Acquire Comprehensive History

Session –22
ANTIBIOTIC PROPHYLAXIS

Mode of Delivery: LGIS



You should be able to

- Describe prophylactic Antibiotic cover, different Antibiotics with recommended dosages
- Describe protocol for antibiotic prophylaxis
justify prophylaxis against infectious endocarditis and total joint replacement

Total no of sessions	Mode of Assessment
22	(SAQs, MCQs, OSCE VIVA)

CLINICAL ROTATIONS:

OPERATIVE DENTISTRY

Week –1 Orientation to Operative Department		Mode of Delivery: DEMONSTRATION
 You should be able to	• Demonstrate correct operator and patient positioning for maxillary and mandibular procedures. • Adjust dental chair and light for optimal visibility and access. • Elicit comprehensive medical and dental history relevant to operative procedures. • Effectively communicate & build rapport with patient • Obtain informed consent effectively • Provide evidence-based knowledge in patient friendly words • Perform pre-procedural patient verification using safety checklists. • Apply standard infection prevention and sterilization protocols.	



Week –2 Foundations of Operative Dentistry: Examination and Instrumentation		Mode of Delivery: DEMONSTRATION
 You should be able to	• Perform systematic intraoral and extraoral examination. • Correlate clinical findings with diagnosis and treatment planning. • Identify and classify operative instruments and rotary equipment • Explain dental problems & etiologies to patient • Explain preventive & management strategies to patient • Prevent accidental ingestion or aspiration of dental materials and instruments	
Week –3 Liners & Bases Shade matching for aesthetic restorations		Mode of Delivery: DEMONSTRATION
 You should be able to	• Select & Apply liners/bases correctly following clinical protocols. • Apply principles of color (hue, value, chroma) in restorative dentistry. •	
Week –4 Amalgam & composite restorations		Mode of Delivery: DEMONSTRATION



You should be able to

- Perform stepwise cavity preparation and restoration placement
- Effectively manage dental pain & anxiety.
- Effectively perform relevant dental procedure
- Use rubber dam isolation appropriately to enhance patient safety.

Week –5
Matrix band application

Mode of Delivery:
DEMONSTRATION



You should be able to

- Select appropriate matrix system for different cavity types.
- Demonstrate proper placement to achieve correct proximal contour and contact

Week –6
Endodontic instruments

Mode of Delivery:
DEMONSTRATION



You should be able to

- Identify and classify endodontic hand and rotary instruments.
- Demonstrate correct use and sequence of instruments
- Handle rotary instruments and sharp devices safely to prevent injury.
- Identify and manage medical emergencies that may arise during operative procedures.

Week –7
Access opening / radiographic interpretation

Mode of Delivery:
DEMONSTRATION



You should be able to

- Demonstrate correct access cavity preparation for different teeth.

Week –8
Canal preparation & obturation

Mode of Delivery:
DEMONSTRATION



Vignette

A 17-year-old student presents with multiple carious lesions, including a grossly carious mandibular right first molar with a discharging buccal sinus. He reports a lost filling causing sharp irritation but no current pain. History reveals incomplete previous dental treatment after an episode of thermal sensitivity. Examination shows localized gingivitis, shallow pockets (<3 mm), and additional small occlusal cavities in molars





 You should be able to	• Perform appropriate investigations and use relevant radiographs to diagnose dental caries and assess risk for effective patient management. • Develop a comprehensive, risk-based treatment plan, including selection of suitable restorative materials and sequencing of care. • Perform cleaning and shaping using appropriate techniques. • Demonstrate obturation with proper length, density, and seal • Communicate post-operative instructions to patient • Demonstrate safe handling and disposal of hazardous dental materials. • Document and report patient safety incidents according to institutional protocols. • Educate patients on post-operative care to minimize complications
Week –9 EXIT EXAM	Mode of Delivery: Ward Test
 You should be able to	• Complete and Submit LOG BOOKS • End of Rotation Ward Test

Total no of weeks.	Mode of Assessment
9	(DOPs, OSCE Mini-CEX, VIVA)

PROSTHODONTICS



Week –1 Orientation to Prosthodontic Department History taking and clinical examination		Mode of Delivery: DEMONSTRATION
 You should be able to	• Introduction to clinical area and related instruments used • Technique of history taking and clinical examination • Establish rapport and obtain a complete medical, dental, social, and prosthodontic history using patient-centered communication. • Identify behavioral factors that may affect treatment (anxiety, unrealistic expectations, non-compliance, cognitive or communication barriers). • Recognize medical and safety risks relevant to complete denture treatment (frailty, aspiration risk, xerostomia, uncontrolled systemic disease, anticoagulant use, allergies, infection risk) and seek appropriate supervision/referral when indicated.	
Week –2 Primary impressions of edentulous patient, custom tray fabrication, secondary impression and maxillomandibular relationship		Mode of Delivery: DEMONSTRATION
 You should be able to	• Primary impression using impression compound • Custom tray fabrication using auto polymerizing resins • Secondary impression taking with zinc oxide eugenol using greenstick for border molding • Provide clear procedural instructions and reassurance throughout impression procedures. • Identify and manage gag reflex, anxiety, and discomfort using appropriate behavioral strategies and safe positioning. • Apply infection-prevention and cross-contamination control measures during impression handling, disinfection, transport, and laboratory communication.	



Week –3

Try in and teeth arrangement

Mode of Delivery:
DEMONSTRATION



You should be able to

- Learn teeth arrangement and utilize biometric guidelines
- Verification of esthetic, phonetics and centric record and VDO at try-in of dentures.
- Demonstrate patience and adaptive communication for elderly, hearing-impaired, cognitively impaired, or anxious patients.
- Discuss esthetic and functional expectations respectfully and involve the patient in shared decision-making.
- Address dissatisfaction, phonetic concerns, and appearance-related concerns empathetically and professionally.
- Verify patient identity and record accuracy before laboratory submission to reduce wrong-patient or wrong-record errors.

Week –4

Lab processing of Denture and insertion

Mode of Delivery:
DEMONSTRATION



You should be able to

- Procedures for processing of denture and insertion
- Perform flasking, de waxing, packing, curing and finishing of dentures
- Counsel the patient regarding insertion, removal, cleaning, overnight storage, adaptation, speech, mastication, and expected sore spots.
- Assess the patient's ability to insert and remove the denture safely before discharge.
- Provide written and verbal post-insertion instructions and verify comprehension using teach-back



Week –5

Follow-up and post insertion complaints

Mode of Delivery:
DEMONSTRATION



You should be able to

- Post insertion follow-up
- Management of complains after insertion
- **Encourage adherence to review appointments and maintenance instructions.**
- **Evaluate complaints (pain, looseness, instability, gagging, speech difficulty, stomatitis) systematically and empathetically.**

Week –6

Anterior crown preparation

Mode of Delivery:
DEMONSTRATION



Vignette

A 58-year-old diabetic male presents for replacement of his maxillary complete denture, complaining of poor esthetics and difficulty chewing. He has worn the maxillary complete denture for 4 years without replacement of the mandibular posterior teeth. Clinical examination reveals severe occlusal wear, an anteroposterior tilt of the maxillary occlusal plane, and anterior maxillary ridge resorption. The patient also exhibits reduced incisal display and a decreased vertical dimension of occlusion.





 You should be able to	• Learn about principles of anterior crown preparation • Escalate concerns, near misses, and adverse events promptly according to institutional policy. • Demonstrate accountability by seeking supervision when competence limits are reached and by participating in reflective learning after patient-safety incidents or difficult encounters.	
Week –7 Posterior crown preparation		Mode of Delivery: DEMONSTRATION
 You should be able to	• Learn about principles of posterior crown preparation	
Week –8 Cast partial denture designing (Class I & II)		Mode of Delivery: DEMONSTRATION
 You should be able to	• Learn about designing of cast partial dentures Kennedy’s I and II	
Week –9 Cast partial denture designing (Class III & IV)		Mode of Delivery: DEMONSTRATION



You should be able to

- Learn about designing of cast partial dentures Kennedy's class III and IV

Total no of weeks.	Mode of Assessment
9	(DOPs, OSCE Mini-CEX, VIVA)

PAEDIATRIC DENTISTRY

Week-1

History taking and clinical examination

Chair positioning and tray set up

Materials and instruments used in Pediatric dentistry

**Mode of Delivery:
DEMONSTRATION**



You should be able to

- Record history and clinical examination for a child including medical, dental, and behavioral assessments
- Correct chair positioning for an infant, a preschooler, and an adolescent, setting up a Pediatric dental tray with appropriate infection control.
- Establish effective doctor–patient rapport in clinical settings
- Demonstrate empathy, active listening, and patient-centered communication
- Verify the identity of pediatric patients and obtain appropriate consent before treatment.
- Apply infection prevention measures appropriate for pediatric dental care.



Week –2 Behavior management Patient counselling		Mode of Delivery: DEMONSTRATION
 You should be able to	• Identify and classify child behaviours (e.g., cooperative, lacking cooperation, potentially cooperative) using recognized scales • Basic non-pharmacological behaviour management techniques • Identify for advanced behaviour management strategies • Demonstrate safe behavior guidance techniques while maintaining patient dignity.	
Week-3 Pits and fissure sealants Preventive Dentistry, Role of Fluorides Fluoride Toxicity		Mode of Delivery: DEMONSTRATION
 You should be able to	• Perform a comprehensive paediatric dental examination. • Select and apply pit and fissure sealants and fluoride agents based on caries risk assessment. • Identify and correctly use Pediatric-specific instruments and materials	
Session –4 Dental Emergencies Management of dental traumatic injuries		Mode of Delivery: DEMONSTRATION, CBL
 Vignette:		

Bilal, a 12-year-old boy, was brought to the dental emergency clinic by his uncle 45 minutes after falling on the stairs at school. His upper right permanent central incisor (#11) was completely avulsed, and the tooth was transported wrapped in a tissue paper. On examination, Bilal was anxious and complained of pain. The upper lip was swollen, and intraoral examination revealed an empty bleeding socket with tenderness of the adjacent teeth. The avulsed tooth had an immature open apex (Cvek stage III–IV), and the child had no relevant medical history.



You should be able to

- Assess a child presenting with a dental emergency by taking history and performing a systematic extraoral and intraoral examination.
- Differentiate between types of traumatic dental injuries using clinical and radiographic findings
- Demonstrate emergency management for an avulsed permanent tooth in a child
- Apply child behaviour management techniques
- Communicate effectively with parents/guardians
- Reduce dental anxiety in pediatric patients
- Use positive reinforcement and behaviour shaping
- Prevent aspiration and ingestion of instruments and materials during treatment.

ORTHODONTICS

Week-1 Orientation to the Orthodontic department, Orthodontic Instruments History taking & Clinical examination, Impression taking	Mode of Delivery: DEMONSTRATION
 You should be able to	• Identify basic orthodontic instruments • History taking • Perform basic clinical examination to formulate a preliminary orthodontic diagnosis • Demonstrate infection control protocols during clinical examination & impression making • Demonstrate empathy, active listening, and patient-centered communication. • Obtain informed consent effectively. • Demonstrate ethical behavior in patient care including patient's dignity, privacy, confidentiality, consent and autonomy. Demonstrate empathy and cultural sensitivity when interacting with patients from diverse backgrounds. • Communicate relevant information to promote patient safety and continuity of care • Motivate patients for long-term orthodontic compliance. • Explain treatment duration, limitations, and responsibility. • Manage adolescent behavioural issues professionally.
Week-2 Cast Analysis	Mode of Delivery: DEMONSTRATION



 You should be able to	• Practice the basic technique of performing cast analysis • Establish rapport and maintain professional conduct with patients and attendants. • Demonstrate empathy and cultural sensitivity when interacting with patients from diverse backgrounds.
Week-3 Basic wire bending	Mode of Delivery: DEMONSTRATION
 You should be able to	• Construct basic components of removable appliances on models such as Adam's clasp and labial bow. • Handle orthodontic wires and instruments safely to prevent soft tissue injury. • Recognize and manage orthodontic emergencies safely. • Prevent aspiration and ingestion of orthodontic components during appliance placement and adjustment.
Week-4 Lateral Cephalometry	Mode of Delivery: DEMONSTRATION
 You should be able to	• Demonstrate skills in lateral cephalometric tracing • Perform basic composite analysis



Week-5
Lateral Cephalometry

Mode of Delivery:
DEMONSTRATION



You should be able to

- Demonstrate skills in lateral cephalometric tracing
- Perform basic composite analysis

Week-6
OPG Interpretation
Hawley's retainer construction

Mode of Delivery:
DEMONSTRATION



You should be able to

- Systematically examine an OPG using a standardized approach to identify both the normal and abnormal findings
- Construct a clinically acceptable Hawley's retainer independently following standard orthodontic laboratory procedures

Week-7
Mixed dentition analysis

Mode of Delivery:
DEMONSTRATION



You should be able to

- Perform mixed dentition space analysis using commonly employed methods such as Moyers analysis, Tanaka–Johnston Analysis & Radiographic analysis
- Interpret the results of mixed dentition analysis and calculate Arch length discrepancy



Week-8

Wire bending

Mode of Delivery:
DEMONSTRATION



You should be able to

- Construct a Z-spring according to standard design specifications with accurate dimensions and helices
- Construct a finger spring with appropriate helix, active arm, and retentive components following standard laboratory procedures

Week-9

Case presentation

Mode of Delivery:
PRESENTATIONS



You should be able to

- Comprehensive orthodontic history from a patient using a structured approach.
- Extraoral and intraoral examination of an orthodontic patient document the findings.
- Identify and record dental, skeletal, and soft tissue abnormalities
- Interpret diagnostic records, including study casts, photographs, cephalometric radiographs
- Formulate a comprehensive orthodontic diagnosis based on findings.
- Develop a problem list by prioritizing the patient's orthodontic problems.
- Construct an appropriate treatment plan
- Present an orthodontic case in a logical, organized, and professional manner using standard orthodontic case presentation protocols.

Total no of weeks.	Mode of Assessment
9	(DOPs, OSCE Mini-CEX, VIVA)



ORAL AND MAXILLOFACIAL SURGERY

Week-1 Orientation to OMFS		Mode of Delivery: DEMONSTRATION
 You should be able to	• Orientation to OMFS • Conduct comprehensive history taking and clinical examination with effective patient-centered communication, while maintaining dignity, privacy, and professional rapport. • Apply ethical principles in clinical practice, including informed consent, patient autonomy, empathy, and cultural sensitivity. • Accurately document clinical findings, perform prescription writing, and communicate relevant information to ensure patient safety and continuity of care • Perform the Examination of head and neck region	
Week-2 Local Anesthesia		Mode of Delivery: DEMONSTRATION
 You should be able to	• Identify & Describe LA • Armamentarium • Dosage • Complications • anatomical landmarks for various LA techniques • Perform various techniques of Nerve Blocks & local anesthesia	



Week-3 Exodontia		Mode of Delivery: DEMONSTRATION
 You should be able to	• Identify appropriate Armamentarium • Apply Principles of instruments used in exodontia • Application and Handling of elevators & forceps. • Interpret Radiological findings: Periapical & OPG, impacted canine & 3rd molars	
Week-4 Medical Management of Compromised Patients TMJ and Pathology		Mode of Delivery: DEMONSTRATION
 You should be able to	• Describe Common Medical Emergencies with Prevention, Diagnosis & Management • Enlist Emergency trolley drugs • Operate Oxygen Cylinder • Perform Clinical Examination of TMJ, Salivary Glands and Lymph Nodes • Perform Reduction of Dislocated TMJ on skull models	
Week-5 Formative Assessment		Mode of Delivery: DEMONSTRATION
 You should be able to	• DOPS followed by individual feedback	



Week-6 Basic Principles of Surgery		Mode of Delivery: DEMONSTRATION
 You should be able to	• Describe suturing material types, their application, specification of suturing needle and suture • Perform various Suturing Techniques + Assignment • Draw and label various surgical flaps used in minor oral surgery + Assignment • Identify and use of appropriate size/number blade according to purpose and anatomical region • Handling of Surgical Blade, placement and removal from BP Handle • Describe Principles of Surgical Incision • Describe principles of Incision & Drainage • Describe Principles of Flap Design	
Week-7 Oral & Maxillofacial Trauma		Mode of Delivery: DEMONSTRATION,C BL
 You should be able to	• Describe reduction & fixation techniques • Make Eye-lets with wire & wire handling • Perform Maxillo-Mandibular Fixation on Models + Assignment • Placement of arch bar on models • Radiological interpretation of Trauma patient • Identification of armamentarium for Major & Minor Surgical Procedures	
Week-8 Ethics		Mode of Delivery: DEMONSTRATION



 You should be able to	• Describe the components of Informed Consent • Explain the Basic pillars of medical ethics • Perform a visit to operation theatre and demonstrate infection prevention measures. • Explain Needle stick injury
Week-9 Assessment week	Mode of Delivery: DEMONSTRATION
 You should be able to	• Complete and Submit LOG BOOKS • Submit Assignments • End of Rotation Ward Test

Total no of weeks.	Mode of Assessment
9	(DOPs, OSCE Mini-CEX, VIVA)

RESEARCH/ICT



Session-1 Scientific Writing: Structure of a Research Manuscript.		Mode Of Delivery: LGIS
 You should be able to	• Describe the IMRAD structure of a scientific manuscript. • Explain the purpose of each section of a research paper. • Organize research findings into a logical manuscript structure	
Session-2 Writing the Introduction and Methodology.		Mode Of Delivery: LGIS, SGD
 You should be able to	• Write a concise and evidence-based introduction. • Present the methodology in a clear and reproducible manner. • Apply appropriate reporting guidelines while writing the methods section	
Session-3 Presentation and Interpretation of Results		Mode Of Delivery: Computer-based practical session, CBL

 You should be able to	• Present statistical findings using appropriate tables and figures. • Interpret statistical outputs accurately. • Differentiate statistical significance from clinical significance	
Session-4 Critical Appraisal of Scientific Literature		Mode Of Delivery: Journal club, guided critical appraisal
 You should be able to	• Critically evaluate published research articles. • Identify strengths, limitations, and potential sources of bias. • Assess the applicability of research findings to clinical practice	
Session-5 Research Ethics and Publication Ethics		Mode Of Delivery: Interactive seminar, CBL
 You should be able to	• Explain ethical principles in scientific publication. • Recognize plagiarism, duplicate publication, and authorship issues. • Apply ethical standards during manuscript preparation.	



Session-6 Referencing, Citation Management and Reporting Guidelines		Mode Of Delivery: Computer laboratory session, demonstration, guided practice
 You should be able to	• Apply Vancouver referencing style accurately. • Use reference management software effectively. • Select appropriate reporting guidelines (CONSORT, STROBE, PRISMA, CARE) for different study designs	
Session-7 Scientific Presentation Skills		Mode Of Delivery: Workshop, peer-assisted learning, student presentations
 You should be able to	• Prepare an effective oral scientific presentation. • Design a professional research poster. • Communicate research findings confidently to an academic audience	
Session-8 Manuscript Writing Workshop		Mode Of Delivery: Supervised writing workshop, peer review, faculty feedback



**You should
be able to**

- Develop a draft manuscript based on their research project.
- Revise scientific writing using faculty and peer feedback.
- Prepare the manuscript for progression to the next stage of completion.



SAMPLE TIME TABLE



DENTAL COLLEGE HITEC – INSTITUTE OF MEDICAL SCIENCES

RECORD FORMAT

WEEKLY TIME TABLE

Final year BDS (2026-2027)

DAY/DATE	8:30 - 9:15	9:15 – 10:00	Break 10:00-10:20	10:20 – 03:30	2:00 – 3:30
MONDAY 08-06-26	Orthodontics (LGIS) Diagnostic aids in Orthodontics (Dr. Hasnain)	Operative Dentistry (LGIS) Introduction to endodontics (Prof Beenish)	- - - - -	CLINICAL TRAINING /WARD ROTATION GROUP-C (Operative Dentistry) (Demonstration) Filling instruments Clinical Quota (Dr Beenish + Dr Sharaz + Dr Sumyyia + Dr Mohsin)	-
TUESDAY 09-06-26	Operative Dentistry (LGIS) Tooth morphology (Prof Beenish)	OMFS(LGIS) Trauma Dentoalveolar Fractures (Dr Fatima Khattak)	- - - - -	GROUP- D (Prosthodontics) (Demonstration)Recording of maxillomandibular relation Clinical Quota. (Dr Aamir + Dr Sameen + Dr Muqeet)	Behavior Session
WEDNESDAY 10-06-26	Pedodontics (LGIS) Pulp Therapy in primary teeth (Dr. Amna Riaz)	Prosthodontics (LGIS) Recording of impression for edentulous patient (Dr. Sameen)	- - - -	GROUP-A (Orthodontics) (Demonstration) Cast analysis (Dr. Asim)	
				GROUP-B (OMFS) (Demonstration) Radiological Interpretation of impacted teeth Clinical Quotas. (Dr Maimoona+ Dr Fatima+ Dr Sadia, Dr Salman, Dr Bilal)	Research
THURSDAY 11-06-26	Prosthodontics (LGIS) Recording of impression for edentulous patient (Dr. Sameen)	Orthodontics (LGIS) Diagnostic aids in Orthodontics (Dr. Hasnain)	10:00 – 10:50 (Mentoring Session)	(SGD)/ CBL 2:00-3:30 (Operative) Tooth morphology (Prosthodontics) Ethics and professionalism (Ortho) Indications of different radiographs used for orthodontic diagnosis (OMFS) Pillars of medical ethics & Informed Consent	
FRIDAY 12-06-26	OMFS (LGIS) Soft tissue injuries (Dr Fatima Khattak)	OMFS (LGIS) Pathology (Biopsy) Dr Maimoona		1:00 – 2:00 Jumma Break	RESEARCH PROJECT GUIDANCE

Weekly Time Table (08th June 2026 to 14th June 2026)

(Week-14)

Group: A = Roll #200 - 212;

Group: B = Roll #;213 – 223;

Group: C = Roll # 224 – 234;

Group: D = Roll # 235 – 248 & 125;

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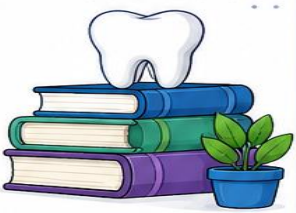
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LEARNING RESOURCES

RECOMMENDED TEXTBOOKS & ONLINE RESOURCES FOR BDS STUDY



1 OPERATIVE DENTISTRY

- Sturdevant's Art & Science of Operative Dentistry
- Cohan's Pathways of Pulp
- Grossman Endodontic Practice
- Contemporary Fixed Prosthodontics Rosenstiel
- Paediatric Dentistry, Richard Welbury



2 ORAL & MAXILLOFACIAL SURGERY

- Contemporary Oral and Maxillofacial Surgery, 7th Edition, James R. Hupp
- Handbook of Local Anesthesia, 7th Edition, Stanley F. Malamed
- Fractures of the Facial Skeleton, 2nd Edition, Peter Banks
- Scully's Medical Problems in Dentistry, 7th Edition, Crispian Scully



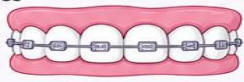
ONLINE RESOURCES

<https://www.sciencedirect.com/>

<https://emedicine.medscape.com/>

3 ORTHODONTICS

- Contemporary Orthodontics William R. Proffit, 7th Edition.
- An Introduction to Orthodontics Laura Mitchell



4 PROSTHODONTICS

- Prosthetic treatment for edentulous patients, Thirteen Edition by Zarb and Hobkirk
- McCracken's Removable Partial Prosthodontics, Thirteen Edition
- Contemporary Fixed Prosthodontics Rosenstiel



5 PAEDIATRIC DENTISTRY

- Welbury 5th Edition Paediatric Dentistry
- McDonald and Avery's Dentistry for Child and Adolescent, 5th Edition



ONLINE LEARNING & DIGITAL SUPPORT



E-BOOKS & JOURNALS
Access high quality e-books and peer reviewed journals.



CLINICAL CASES
Explore clinical cases and videos for better learning.



VIDEO LECTURES
Watch video lectures and procedural demonstrations.



STAY UPDATED
Follow latest guidelines and research updates.



RELIABLE SOURCES
Use trusted platforms for evidence based study.





Feedback on the study guide:
We value your feedback and will use it for improvement of this study guide. Kindly provide feedback at the given email address: dental.education@hitec-ims.edu.pk