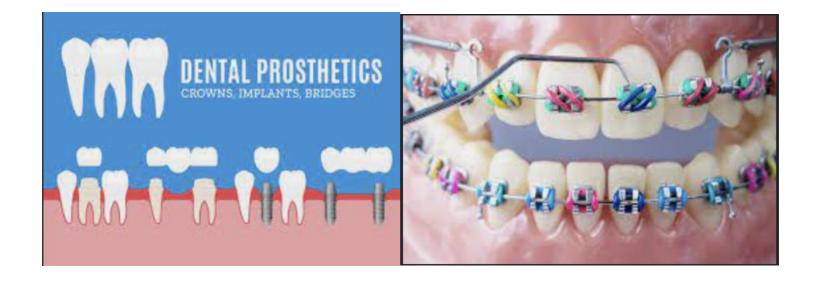


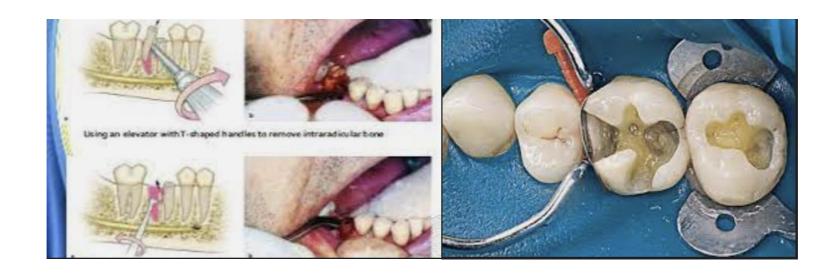


DENTAL COLLEGE HITEC-IMS Study Guide Y4 - T1 - D25 Term I Final Year BDS

Coordinator: Prof. Dr. Beenish Qureshi









"Medical education does not exist to provide students with a way of making a living but to ensure the health of the community."

Rudolf Virchow



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2.	Oral And Maxillofacial Surgery	Error! Bookmark not defined.
3.	Ortho dontics	Error! Bookmark not defined.
4.	Prostho dontics	Error! Bookmark not defined.



List of Abbreviations

CBL Case Base Learning

EECS Early Exposure to Clinical Skills

EOT End of Term Examination FGD Focus Group Discussion

LGIF Large Group Instructional Format LGIS Large Group Interactive Session

MCQ Multiple Choice Question

MIT Mode of Information Transfer

NUMS National University of Medical Sciences

OMFS Oral & Maxillofacial Surgery

OSCE Objectively Structured Clinical Examination
OSPE Objectively Structured Practical Examination

PMC Pakistan Medical Commission

SAQ Short Answer Question SDL Self-Directed Learning

SEQ Structured Essay Questions
SGD Small Group Discussion

SGD Small Group Discussion TOS Table of Specification

WFME World Federation of Medical Education





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 life long learning oral health care professionals



Term Committee

Coordinator: Professor Dr. Beenish Qureshi

HoD Operative Dentistry, Contact No: 0333-4368332

S. No.	Name	Designation	Departments	Contact Number
1	Prof. Dr. Waheed Ullah Khan	Vice Principal / Professor / Dean Clinical Sciences / HoD	Orthodontics	0333-5206136
2	Prof. Dr. Beenish Qureshi	Professor / HoD	Operative Dentistry	0333-4368332
3	Dr. Aamir Rafique	Associate Professor / HoD	Prosthodontics	0334-4353578
4	Dr Amna Riaz	Associate Professor/HoD	Paediatric Dentistry	0336-5775566
4	Dr. Maimoona Siddique	Assistant Professor / HoD	OMFS	0333-2173509
5	Dr. Faizan Munir	Assistant Professor / HoD Dental Education	Dental Education	0334-0031031
6	Rooha Asif	Student	Final Year	03335512003
7	Haider Ali Awan	Student	Final Year	03270103098



Curriculum Overview/Implementation

Preface

The curriculum meets the standards of the Pakistan Medical Commission, the Higher Education Commission of Pakistan, and the World Federation of Medical Education, so that our students, on completion of the program, have the required competencies as defined worldwide in a graduate doctor.

Model

The curriculum of Dental College HITEC-IMS is based on a traditional discipline-based model of educational strategies. Nevertheless, we have incorporated some elements of SPICES model student-centred, integrated, community-oriented and systematic aspects. As a result, our curriculum has evolved, considering traditional, experiential, behavioural, and constructivist perspectives of curricula.

Organisation

The curriculum is organised and integrated along important vertical and horizontal dimensions. The content taught is integrated concurrently in the horizontal organisation and vertically across the years of BDS program. The course of the final year is divided into three terms. In each term, the sequencing of the content is logical and integrated. Professionalism will be inculcated as part of the longitudinal theme.



Teaching Strategies

This curriculum aims to improve doctors' clinical skills, including communication, leadership, management, research skills, ethical values and professionalism. BDS final year deals with the clinical subjects of Operative Dentistry, Orthodontics, Prosthodontics and Oral & Maxillofacial Surgery to learn and develop clinical skills. In addition, clinical exposure is ensured, which helps them learn real-life clinical scenarios and implement the skills learnt during the academic session.

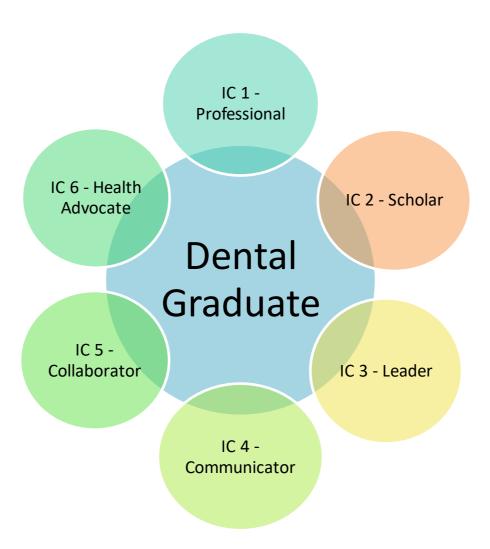
Multiple teaching strategies are used. First, LGIS are used to provoke thought and understanding among students. These help to understand topics which need effort including basic sciences review along with updated research, and best evidence medical information. Second, we are teaching clinical implications of each topic giving learning experience that is contextual, realistic, and relevant. Third, small group discussions encourage students to learn socially and discuss their concepts to refine their schemas.

<u>Assessment</u>

Constructive feedback is provided via formative assessments by assignments, presentation, CBL and class tests. The students are summatively assessed by term and pre annual examinations at the end of the academic year according to the standards outlined by NUMS.



Institutional Competency Framework





Alignment of Term Outcomes with Institutional Competencies

S. No.	Term Outcomes	Term Outcome Code	Institutional Competencies
1.	Implement the knowledge of sterilisation & cross-infection protocol in relevant clinical scenarios in the dental operatory	Y4-T1/O-1	IC 1, IC 6
2.	Correlate the aetiology of oral diseases with applying knowledge, interception & management in relevant clinical conditions	Y4-T1/O-2	IC 1 to IC 6
3.	Apply the concepts of occlusion in the development of dentofacial problems, orthodontic, restorative, and prosthetic management	Y4-T1/O-3	IC 1 to IC 6
4.	Correlate the clinical presentation of dentate & edentulous patients with the application of principles of surgical practice and restorative management	Y4-T1/O-4	IC 1 to IC 6
5.	Recognise a medical emergency in the dental setting and apply the knowledge of prevention & management in clinical departments	Y4-T1/O-5	IC 1 to IC 6



Yearly Clinical Rotation Schedule FINAL YEAR BDS SESSION 2025

DEPARTMENT	Operative Dentistry	Prosthodontics	Orthodontics	OMFS
03-02-25 - 09-03-25	А	В	С	D
10-03-25 – 30-3-25	D	A	В	С
31- 03-25 - 06- 04-25		Eid –ul-Fit	r Holidays	
07-04-25 - 13-04-25	D	А	В	С
14-04-25 – 20-04-25		Sport	Week	
21-04-25 - 27-04-25	D	А	В	С
28-04-25 -01-06-25	С	D	А	В
02-06-25 - 08-06-25	В	С	D	А
09- 06-25 - 22- 06-25	Eid –ul-Azha +Summer Vacations			
23-06-25 – 20-07-25	В	С	D	А

Group: A = Roll no.: 150-161 Group: B = Roll no.: 162-174 Group: C = Roll no.: 175 - 187 Group: D = Roll no.: 131 - 141 Group: E = Roll no.: 188-199 & 125

2ND ROTATION PLAN



DURATION	21st July –07th December 04 weeks in each Department				
DEPARTMENT	Operative Dentistry	Prosthodontics	Orthodontics	OMFS	Paedodontics
21-07-25 – 17-08-25	А	В	С	D	E
18-08-25 – 14- 09 -25	Е	А	В	С	D
15-09-25 – 12-10-25	D	E	А	В	С
13-10-25 - 09-11-25	С	D	E	А	В
10-11-25 – 07 - 12 -25	В	С	D	E	A

Group: A = Roll no.: 150-161 Group: B = Roll no.: 162-174 Group: C = Roll no.: 175 - 187 Group: D = Roll no.: 131 - 141 Group: E = Roll no.: 188-199 & 125

> Final Year Coordinator Prof.Dr Beenish Qureshi



Structured Summary – Term I

Term Code	Y4-T1-D25
Term Title	Fundamentals of Clinical Sciences
Duration Of Term	13 weeks
Important Dates 3 rd February to 16 th May 2025(Ist term exam)	
Horizontally Integrated Themes	 Occlusion Local anaesthesia Management of medically compromised patients Dental anomalies Radiology
Vertically Integrated Themes	Communication Skills* Professionalism*
Prerequisite Blocks	All 1 st 2 nd & 3 rd year blocks

^{*}These themes are taught via MITs of clinical rotations, SGD's, CBL's and role modelling in clinical years via practical and role playing in basic sciences.



Basic Evaluation Report & Resultant Modifications (Focus Group Discussion (FGD



DENTAL COLLEGE HITEC - INSTITUTE OF MEDICAL SCIENCES

RECORD FORMAT

IONS FOR HOUSE OFFICERS

To: All Departments

Subject: Minutes - Focus Group Discussion -Term I

 Focus group discussion was held at 04 March 2025 in Final Year Coordinator's office following were in attendance

Sr.	Members	Signature
1.	Professor Dr. Beenish Qureshi, HoD Operative Dentistry coordinator final Year BDS	Pace
2.	Dr Main M Ans, House Officer	Ause
3.	Dr Yusra Rehman , House Officer	yurter.
4.	Dr Palwasha Cheema, House Officer	Fr. S.
5.	Dr Amna Ahmad, House Officer	Ano.
6.	Dr Laiba Gull, House Officer	Gall.
7.	Dr Faria Zahid, House Officer	Lana.
в.	Dr Huda habib, House Officer	CAT
9.	Dr Aqsa Nadeem, House Officer	Agber Nadee m
10.	Dr Dua Abbas, House Officer	Def_
11.	Dr Umama Ahmad, House Officer	malingal.

Discussion & Agenda Points:

Sr.No	Agenda Point	Discussion
1.	Organization of course content	 Most Students were satisfied with distribution of course content in terms. Some students said that course content is complex and teachers made it possible to cover it on time.

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DENTAL COLLEGE HITEC - INSTITUTE OF MEDICAL SCIENCES

RECORD FORMAT

IONS FOR HOUSE OFFICERS

2.	Appropriateness of course MITS and Assessments	Students noted that the exam effectively assessed their Knowledge & its application.
3.	Recommendation based on FGD	 1.Some Student suggested to demonstrate clinically the use of EPT & surveyor for better understanding Based on students feedback, it is recommended that appropriate time should be given to ensure students understanding objectively. Study guides, Time tables & all relevant schedules are well communicated on time & should be maintained.

Final Year BDS Coordinator

Professor Dr. Beenish Qureshi 04th March, 2025





Assessment

Types and Schedules

Assessment is continuous in the form of class tests, departmental assignments and practical tests. Continuous assessment is separate from the Term exam.

Formative assessment includes tests/written assignments, presentations and feedback to the student during the teaching time. The purpose of formative assessment is to provide feedback to the students for improvement and to teachers to identify areas where students need further guidance.

From the 4th week onwards, the class tests of Operative Dentistry, Prosthodontics, Orthodontics, and OMFS will be held on rotation basis. During the 12th week, the end-of-term exam will be taken. The EOT exam will comprise of theory, practical including MniCex and CBL separately. All these will form part of summative assessment, along with pre-annual exams. This will contribute towards internal assessment.

Students must secure 50% marks in theory and practical exams separately, per university criteria.

The student who fails the end-of-term exam will be allowed to attend the next term; however, his/her internal assessment will be affected accordingly.

<u>Internal assessment criteria for submission of internal assessment marks of final Professional Examination NUMS:</u>

- 1. The weightage of internal assessment shall be 20% or twenty marks for a 100 marks Paper in the annual examination.
- 2. End-of-term examination / practical quota, pre-annual examination and accumulative attendance shall contribute toward internal assessment.



Tentative Exam Schedules

Final Year BDS - 1st term - 2025

Theory exam schedule:

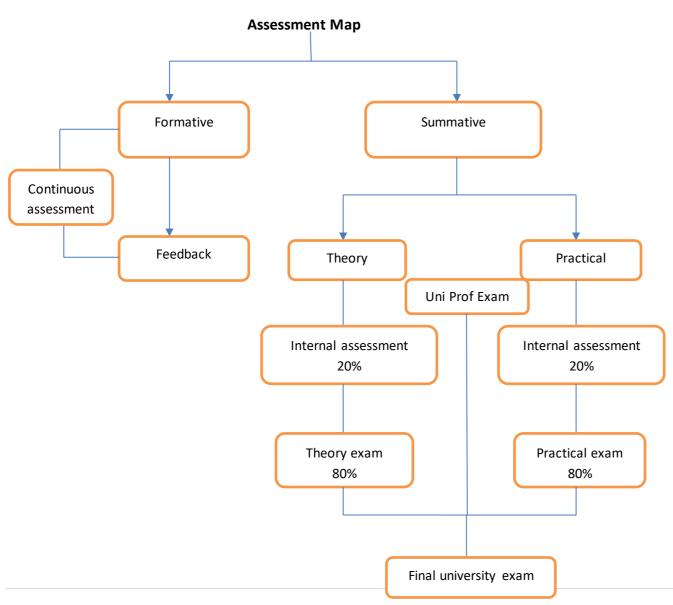
DATE/DAY	SUBJECT	TIME
12-05-25/Monday	Operative Dentistry	8:45am to 11:45am
13-05-25/ Tuesday	Orthodontics	8:45am to 11:45am
14-05-25/ Wednesday	Prosthodontics	8:45am to 11:45am
15-05-25/ Thursday	OMFS	8:45am to 11:45am
16-05-25/ Friday	Paedodontics	8:45am to 11:45am

Practical exam schedule:

The exit exam at the end of each rotation from each department will be counted as a practical exam for the first term.



Standard Assessment Map





Actual Academic Calendar <u>Final Year BDS Session – 2025/26</u>



DENTAL COLLEGE HITEC - INSTITUTE OF MEDICAL SCIENCES

RECORD FORMAT

ACADEMIC CALENDAR

Final Year BDS Session - 2025/26

Duration: 40 weeks

Commencement of New Academic Year	3rd February 2025
Orientation day	3 rd February 2025
FIRST TERI	VI (13 Weeks)
Academics 08/13 Weeks	3 rd February 2025 to 30 th March 2025
Eid ul Fitr (1 Week)	31 st March 2025 to 6 th April 2025
Academics 01/13 Weeks	7 th April 2025 to 13 th April 2025
Sport week	14 th April 2025 to 20 th April2025
Academics 03/13 Weeks	21st April 2025 to 11th May 2025
1 st Term exam 01/13	12th May 2025 to 18th May 2025
SECOND TER	RM (14 Weeks)
Academics 03/14 Weeks	19 th May 2025 to 8 th June 2025
id ul Adha + Summer Vacations (2 Week)	9 th June 2025 to 22 th June2025
Academics 10/14 Weeks	23 th June 2025 to 31 st August 2025
2 nd Term Exam 01/14	1st September 2025 to 7th September 2025
THIRD TERM	/1 (13 Weeks)
Academics 12/13 Weeks	8 th September 2025 to 30 th November 2025
3 rd Term Exam 01/13	1st December 2025 to 7th December 2025
Prep Leaves for Sendups (01 Week)	8 th December 2025 to 14 th December 2025
Send up / Pre Prof Exam (2 Weeks)	15th December 2025 to 29th December 2025
Prep Leaves for Prof (05 Weeks)	30th December 2025 to 1st February 2026
Final Professional Exam	2 nd February 2026 as proposed by NUMS
	Bil

01-09-2023

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Sample Timetable

DENTAL COLLEGE HITEC - INSTITUTE OF MEDICAL SCIENCES

RECORD FORMAT WEEKLY TIME TABLE

Final year BDS (2025-2026)

(Week-03) Weekly Time Table (17th February 2025 to 23rd February 2025) DAY/DATE 8:30 - 9:15 9:15 - 10:00 Break 10:45-12:00 10:20 - 03:30 10:00-10:20 CLINICS MONDAY Prosthodontics(LGIS) Operative Clinics Principles of tooth Dentistry(LGIS) 17-02-25 preparation Caries risk GROUP-A (Operative Dentistry) (Dr Aamir) assessment (Demonstration) Instrument of Operative Dentistry (Prof.Dr Beenish) (Dr Sharaz) Orthodontics(LGIS) OMFS(LGIS) TUESDAY Clinical Quota (Dr Beenish + Dr Sharaz + Dr Sumyyia + Dr Mohsin) Growth & Basic Principles of 18-02-25 GROUP-B (Prosthodontics) development surgery (Demonstration) Maxillo mandibular Relationship (Prof.Dr Irfan Shah) (Dr Hasnanin) Clinical Quota.(Dr Aamir + Dr Sameen + Dr Muqeet) GROUP- C (Orthodontics) Prosthodontics(LGIS) Peadodontics(LGIS) WEDNESDAY (Demonstration) Wire Bending Principles of Philosophy of 19-02-25 (OMFS) occlusion GROUP-D treatment (Demonstration) Suturing technique + informed consent (Dr Mugeet) (Dr Amna) Clinical Quotas.(Dr Maimoona+ Dr Fatima+ Dr Sadia &Dr Hassan) Orthodontics(LGIS) OMFS (LGIS) THURSDAY Growth & Exodontia 20-02-25 development (Dr Maimoona) (Dr Hasnanin) 1:00 - 2:00(SGD) 2:00-3:30 Orthodontics(LGIS) Operative FRIDAY Jumma Growth & (Operative) Pulp dentine complex Dentistry(LGIS) 21-02-25 Break development Management of (Prostho) Surveying (Ortho) Difference between growth center & growth site (Dr Hasnanin) Dental caries (Prof.Dr Beenish) (OMFS) LA Technique Group: D = Roll # 188 - 199 & 125; Group: C = Roll # 175/- 187; Group: B = Roll #;162 - 174; Group: A = Roll #150 - 161;

Prof. Dr. Beenish Qureshi

Dr. Falzan Munit

Dr. Aarfir Rafigue

Dr. Maimoona Siddique



Operative Dentistry

S.	Topic /	Learning Outcomes	Learning Objectives	IC		Assessment
No.	Theme	At the end of term, the student will be able to:	At the end of term, the student will be able to:	Codes	MITs	Tools
1	Introduction to Operative Dentistry	 Demonstrate basic knowledge of Operative Dentistry Follow infection control protocol while working in clinical areas 	 Knowledge Define Operative Dentistry Skill Apply techniques of sterilization and cross infection control within clinical departments 	IC 2 IC 1 to IC 6	LGIS Practical	MCQs Viva OSCE
2	Cariology	 Apply knowledge of dental caries & its types and causes Develop diagnosis & treatment planning for dental carious lesions 	 Knowledge Define aetiology, tooth habitats and types of dental caries Define salivary functions Describe enamel caries and dentin caries Classify caries by ICDAS 	IC 2	LGIS / SGD / CBL	MCQs SAQs VIVA
		dental carrous resions	Skill Detect clinically active carious lesions Perform different diagnostic tests Attitude Behave respectfully with all patients	IC 1 to IC 6 IC 1 IC 4	Demonstration / Clinical Quota Demonstration / Clinical Quota	OSCE

8						
00 J 100	Prevention of caries Apply knowledge for treatment of dental caries & preventive protocols for dental caries Apply knowledge about caries risk assessment, Mechanism of action of fluoride for caries prevention Apply knowledge of pits & fissure sealants & preventive resin restorations in clinical	 Enlist the preventive protocols and modalities for caries Describe mechanism of action of fluoride to prevent dental disease Enlist indications & contraindications of pits & fissure sealants 	IC 2	LGIS / SGD / CBL	MCQs SAQs	
		Demonstrate Caries treatment by medical model Apply clinical considerations in treatment & prevention of caries Attitude Discuss the diet management of high caries risk patient with respect	IC 1 to IC 6 IC 1 to IC 6	Practical / Demonstration / Clinical Quota Practical / Demonstration / Clinical	OSCE / Practical exam OSCE / Practical exam	
4	Diseases of pulp and peri radicular tissues	Demonstrate knowledge about causes of pulpal & periradicular diseases Apply the basic knowledge to	 Knowledge Identify etiologic factors causing pulp inflammation Explain the mechanism of spread of inflammation in the pulp Classify pulpal diseases Classify periradicular diseases 	IC2	Quota LGIS / SGD / CBL	MCQs SAQs VIVA
		classify pulpal & periradicular diseases and give treatment options	Diagnose pulpal & periradicular diseases Plan treatment for pulpal and periradicular dieases	IC 1 TO IC 6	Demonstration / Clinical Quota	OSCE / Practical exam

\$ Milli						
Sciences Table	Evidence	Demonstrate	Respect the confidentiality of patient Knowledge	IC 1	Demonstration / Practical LGIS	OSCE MCQs
,	based dentistry in restorative materials Restorative materials Amalgam & composites Dental cements	 knowledge about Amalgam & composites applied chemistry Discuss hazards related to mercury Describe various uses of restorative materials 	 Describe properties of amalgam Define Indications and contraindications Define advantages and disadvantages of Amalgam Classify composites Describe components and setting characteristics of composites Describe important properties of composites Enumerate the steps for composite restorations Describe the applied chemistry of dental cements 		/ SGD / CBL	SAQs VIVA
			Application of different cements as indicated	IC1 to IC 6	Demonstration s/ Practical	OSCE / Practical
			AttitudeAvoid wastage of material	IC 1 IC 6	Demonstration / Practical	OSCE

\$ July						
	Cross infection control	 Infection Control Identify various types of microorganisms commonly found in the dental office Environment, and their potential implications for patients and staff safety. Discuss regularly guidelines and standards governing sterilization and infection control in the dental practice (OSHA/CDC) Discuss and evaluate effective methods for infection control and sterilization 	 Describe Hygiene and proper hand washing technique. Enumerate advantages & disadvantages of cross infection control describe the mode and route of infection transmission in dental operatory Skills Practice cross infection control according to CDC guidelines. Demonstrate use of PPE in the dental office Practice safe disposal of waste and sharp. Attitude Practice ethically and professionally 	IC 1 to IC	LGIS / SGD/ practical	MCQs VIVA
7	Occlusion	 Apply basic principles of normal & abnormal 	KnowledgeDefine normal and abnormal occlusion	IC 2	LGIS	MCQs
		occlusion for restorative procedures	 Skill Application of basic principles of occlusion for restorative procedures 	IC1 to IC 6	Demonstration / Practical	OSCE

8 July						
Sciences Tax			Show respect to patients	IC 1 IC 4 IC 5	Demonstration / Practical	OSCE
8	Adhesion to enamel & dentin	 Demonstrate the knowledge of Components of bonding Apply the knowledge of 	 Knowledge Describe types of Adhesion Enumerate components of bonding Describe Enamel Adhesion Describe Dentin Adhesion Enumerate the various generations of bonding agent 	IC 2	LGIS / SGD	MCQs SAQs VIVA
		Enamel & dentin bonding in clinical practice	Perform steps of enamel and dentin bonding on patients teeth	IC1 to IC 6	Demonstration	OSCE
			Attitude • Explain procedure to patient	IC 1 to IC 6	Demonstration	OSCE
9	Radiology and Radiography	Demonstrate & apply the knowledge to interpret periapical OPG radiographs	 Knowledge Discuss basic principles and interpretations of dental radiography Discuss clinical techniques for performing periapical radiographs 	IC2	LGIS / SGD	MCQs SAQs/ Viva
		& OPG radiographs & rectify the errors in radiographs	 Skill Demonstrate the interpretation and rectify the errors in periapical radiographs Demonstrate the interpretation of OPG radiographs for diagnosis 	IC 1 To IC 6	Demonstration	OSCE

5	Carling Services		I	I 1	10.4	T T	0005
redicar	Sciences Textla			<u>Attitude</u>	IC 1 IC 4	Demonstration	OSCE
				Show empathy with patients	10 4		
-	10	Madically		Knowledge	IC2	ICIC	MCOc
	10.	Medically	Discuss the	K <u>nowledge</u>	IC2	LGIS / SGD	MCQs SEQs
		compromise	management of a	Explain the steps taken in		/ 300	VIVA
		d patient	medically	management of medically			VIVA
			compromised	compromised patients			
			patient				

Practical

Weeks	Topic for SGD	Demonstration	Facilitator
1 st week	 History taking Diagnostic aids Diagnosis of pulpal and periapical diseases 	Chair positionHistory takingClinical examination	Dr Beenish Dr Usman
2 nd week	Sterilization and infection controlAseptic techniquesPPE	Pits and fissure sealents	Dr Afshan
3 rd week	 Preventive modalities and protocols Indications for Pits and fissure sealents Diet management for high risk patients 	Matrix band application	Dr Usman Dr Amna
4 th week	Term Exam		

5th week

• Fundamentals of tooth preparation

• GV Blacks classification

 Instruments and equipment for tooth preparation and restoration

Dr Usman Dr Amna

Prosthodontics

Topic / Theme	Learning	Outcomes	Learning Objectives	IC Codes	MITs	Assessment Tools
		At the completion of the session, the students should be able to:	At the completion of the session, the students should be able to:			
			FIXED PROSTHODONTICS	6	•	
Introduction to fixed denture	partial	 Describe fixed prosthodontics and its terminologies Describe prosthodontics diagnostic index 	 KNOWLEDGE Define prosthodontics and describe its branches. Describe Prosthodontic Diagnostic Index for partially dentate and completely dentate patient Describe different terminologies used in prosthodontics. 	IC-1, IC-2, IC-4	L.G.I.S	MCQs &SAQS
Diagnosis and treatm of FPD	nent planning	Plan treatment for missing tooth/teeth considering affecting factors	 KNOWLEDGE Describe treatment options for: ✓ A single and multiple missing teeth 	IC-1, IC-2, IC-4	L.G.I.S/ SGD	MCQs, SAQS &VIVA

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ger oor Tasis		✓ Missing tooth with			
		mesially tilted abutments ✓ Pier abutments • Describe Ante's Law • Describe factors which affect replacement of multiple missing teeth. SKILL • radiographic evaluation of abutment			
		or abatment			
Principles of Occlusion	Describe various principles of occlusion	 KNOWLEDGE Describe Posselt's envelope of motion Enumerate the determinants of mandibular movement Describe various occlusal schemes for fixed prosthodontics 	IC-1, IC-2, IC-4	L.G.I.S/ SGD	MCQs, SAQS &VIVA
		SKILL Examine the natural occlusion	IC-1, IC-2, IC-3, IC-4, IC-5, IC-6	Clinical demonstrations	OSCE &VIVA
Principles of Tooth Preparation	Describe various considerations of tooth preparations	 KNOWLEDGE Describe biological considerations of tooth preparation 	IC-1, IC-2, IC-4	L.G.I.S/ SGD	MCQs, SAQS &VIVA
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Crown preparation	Describe and perform crown preparation	Describe mechanical considerations of tooth preparation Describe advantages of supragingival margins Describe indications for subgingival margins Compare different margin designs Describe esthetic considerations of tooth preparation KNOWLEDGE Enlist advantages, disadvantages, indications and contraindications of complete cast crown, metal ceramic crown Describe steps of complete cast crown metal ceramic crown and all ceramic crown and all ceramic crown and all ceramic crown preparation	IC-1, IC-2, IC-4	L.G.I.S SGD	MCQs, SAQS &VIVA
		SKILL Perform tooth preparation for metal ceramic crown on typodonts	IC-1, IC-2, IC-3, IC-4, IC-5, IC-6	Clinical demonstrations	OSCE &VIVA

444	1	T			T
Tissue management and	Describe tissue	KNOWLEDGE	IC-1,	L.G.I.S/SGD	MCQs, SAQS &VIVA
impression making	management	• Describe various methods	IC-2,		
	protocols during	for displacement of	IC-4		
	impression making	gingival tissues			
	in FPD	• Describe various methods			
		for isolation/saliva			
		Describe Recommended			
		disinfection methods			
		according to impression			
		materials			
		<u>SKILL</u>	IC-1,	Clinical	OSCE &VIVA
		Select impression materials	IC-2,	demonstrations	
		for fixed prosthesis	IC-3,		
		Perform impression making	IC-4,		
		in patients requiring fix	IC-5,		
		prosthesis	IC-6		
Pontic design	Describe various	KNOWLEDGE	IC-1,	L.G.I.S/SGD	MCQs, SAQS &VIVA
	pontic designs	Describe biologic,	IC-2,		
		mechanical and esthetic	IC-4		
		considerations for			
		successful pontic design			
		Classify pontics			
		• Enlist indications,			
		contraindications,			
		advantages and			
		disadvantages of various			
		pontic designs			
		<u>SKILL</u>	IC-1,	Clinical	OSCE
		Select pontic design	IC-2,	demonstrations	
		according to clinical	IC-3,		
		situation	IC-4,		

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ger en radia			IC-5, IC-6		
Periodontal considerations	Understand the periodontal tissues evaluation for fixed partial denture	 KNOWLEDGE Describe the stages of periodontal disease progression Understand the concept of biologic width Describe the guidelines for margin placement in reference to biologic width Describe the procedure for site preparation for ovate pontic 	IC-1, IC-2, IC-4	L.G.I.S	M.C.Qs. SAQs. VIVA
Crown lengthening	Understand the crown lengthening procedure	KNOWLEDGE Describe the indications of crown lengthening Describe the techniques for crown lengthening Describe the factors consider prior to crown lengthening procedure	IC-1, IC-2, IC-4	L.G.I.S	M.C.Qs. SAQs. VIVA
Interim restoration	Understand the concept of interim restoration	KNOWLEDGE • Discuss the need for interim restoration • Explain the biologic, esthetic and mechanical	IC-1, IC-2, IC-4	L.G.I.S	M.C.Qs. SAQs. VIVA

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gg co bas		requirements of interim			
		restoration Describe various types of prefabricated crowns Explain different techniques foe interim restoration			
Luting agents and cementation	Understand the use	KNOWLEDGE	IC-1,	L.G.I.S	M.C.Qs.
procedure	of various luting	 Discuss the properties of 	IC-2,		SAQs.
	agents	cements	IC-4		VIVA
		• Enlist the indications of			
		various luting agent			
		• Explain the conventional			
		cementation method			
		 Explain the luting procedure ceramic 			
		veneers, inlays and onlays			
		Tencers, mayo and emayo			
Resin retained FPDs	Understand the	<u>KNOWLEDGE</u>	IC-1,	L.G.I.S	M.C.Qs.
	conservative	Enlist the indication and	IC-2,		SAQs.
	treatment option for	contraindications of resin	IC-4		VIVA
	the replacement of missing teeth	bonded fixed partial denture			
	missing teeth	Describe the advantages			
		and disadvantages of			
		fixed partial denture			
		Describe the design			
		features of resin bonded			
		bridge			
		Explain the cementation			
		steps of resin bonded			
		bridge			



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Management of co	omplications	Understand the	<u>KNOWLEDGE</u>	IC-1,	L.G.I.S	M.C.Qs.
		management of	Discuss the protocol	IC-2,		SAQs.
		postoperative complication	followed during the post cementation appointments • Describe the management of post insertion complications	IC-4		VIVA
			COMPLETE DENTURE			
Introduction to Pa	tient Evaluation	Describe the protocol for the evaluation of edentulous patient	KNOWLEDGE Describe the house classification Describe various systemic health conditions affecting complete denture	IC-1, IC-2, IC-4	L.G.I.S	MCQs, SAQS &VIVA

Management of edentulous	Describe the	KNOWLEDGE	IC-1,	L.G.I.S	MCQs &SAQS
patients	management of edentulous patients	 Describe management of abused oral tissues before fabrication of a new denture. Enlist objectives of preprosthetic surgical prescriptions Explain surgical correction of conditions that preclude optimal prosthetic function Describe the methods used for the enlargement of denture bearing area 	IC-2, IC-4	SGD	
		SKILL Perform history taking Perform extra oral and intraoral examination	IC-1, IC-2, IC-3, IC-4, IC-5, IC-6	Clinical demonstrations	OSCE

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Sequelae complete dentures	Of wearing	Describe direct and indirect sequelae of wearing complete denture	KNOWLEDGE Direct and indirect sequelae caused by wearing removable prosthesis, Traumatic ulcers Denture irritation hyperplasia Denture stomatitis Kelly's syndrome Residual ridge reduction Xerostomia Gag	IC-1, IC-2, IC-4	L.G.I.S SGD	MCQs, SAQS &VIVA
Biomechani	cs of edentulous state	Describe the biomechanical support mechanism for complete dentures	Describe the effect of residual ridge reduction on support of complete denture	IC-1, IC-2, IC-4	L.G.I.S	MCQs, SAQS &VIVA

Practical

Weeks	Topic /Theme	Learning Objectives	IC Codes	M.I.Ts	Assessment Tools
Week 1	 Orientation to prosthodontic department History taking & clinical examination 	 Have an orientation to clinical area Get familiar with instruments & appliances 	IC1- IC6	Demonstration SGD	OSCE/Practical

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Soor des Taxas		 Learn the techniques of history taking & clinical examination 			
Week 2	 Primary impressions of edentulous patients Custom tray fabrication Secondary impression 	 Taking primary impression using impression compound Fabrication of custom tray using auto polymerizing resins Recording secondary impression with zinc oxide eugenol using green stick as border moulding material Performing beading and boxing of secondary impressions 	IC1- IC6	Demonstration SGD	OSCE/Practical/DOPS
Week 3	Maxillomandibular relationshipTeeth setup	 Learn about recording maxillomandibular relation using biometric guidelines Learn about teeth arrangement using records obtained from patients and also utilizing the biometric guidelines 	IC1- IC6	Demonstration SGD	OSCE/Practical/DOPS
Week 4	 Try-in Laboratory procedures for denture processing 	 Learn about the verification of esthetic, phonetics, centric record &VDO at try-in of dentures Perform flasking, de waxing, packing, curing and finishing of dentures 	IC1- IC6	Demonstration SGD	OSCE/Practical/DOPS
Week 5	 Insertion of dentures Follow up &management of post insertion complains 	 Learn about the insertion protocol of dentures Post insertion follow up management Learn about the management of complains after the insertion of dentures 	IC1- IC6	Demonstration SGD	OSCE/Practical/DOPS



Orthodontics

S.	Topic /	Learning Outcomes	Learning Objectives	IC	MITs	Assessment
No.	Theme	At the end of the term, the students will be able to:	At the end of the lecture, the students will be able to:	Codes		Tools
1	Introduct ion to Orthodo ntics	 Demonstrate the basic knowledge of fundamentals of Orthodontics and its terminologies Discuss the need of Orthodontic treatment 	 Knowledge Define Orthodontics and describe its branches Identify the aim and need of orthodontic treatment (IOTN) Describe different terminologies used in Orthodontics 	IC 2	LGIS	MCQs SAQs VIVA
2	Growth & Develop ment	Correlate the concepts of growth and development of the craniofacial region with the development of dento-facial problems	 Enowledge Discuss the concept of normal and abnormal pattern of growth and development of craniofacial complex Define growth site and centers Describe growth theories Describe pre and post-natal growth of cranium, naso-maxillary complex, palate and mandible Explain different growth assessment parameters Describe growth of facial soft tissues 	IC 2	LGIS	MCQs SAQs VIVA

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3	Develop ment of Dentition	Apply the knowledge of development of dentition in the development of orthodontic problems	 Discuss the concept of later stages of growth Explain the growth rotations of the jaws Knowledge Explain the features of primary, mixed and permanent dentition Describe tooth development and eruption, variation in development including size, number form and position of teeth and factors 	IC 2	LGIS / SGD	MCQs SAQs VIVA
			 affecting development Describe the dimensional changes in dental arches during different dentition periods 			
4	Occlusion	 Elaborate the knowledge of normal occlusion Apply the concept of development of occlusion in the development of orthodontic 	 Knowledge Define normal and abnormal occlusion Describe Andrew's Six Keys of Occlusion Classify malocclusion Explain different causes of malocclusion 	IC 2	LGIS / SGD	MCQs SAQs VIVA
		problems	Identify different types of malocclusions on casts	IC 1 to IC 5	Demonstrati ons / Practical	OSCE/Practical exam
5	Diagnosti c aids in	 Apply the use of different diagnostic aids in the 	 Knowledge Describe different radiographs used in Orthodontics 	IC 2	LGIS SGD	MCQs SAQs VIVA



Orthodo ntics	orthodontic diagnosis, treatment planning and evaluation of	•	Describe the indications, advantages and limitations of various radiographs Describe the radiation hazards			
	treatment outcomes	Skill •	Perform interpretation of different radiographs Perform cephalometric analysis and give its interpretation Perform different cast analysis	IC 1 to IC 5	Demonstrati ons / Practical	OSCE / Practical exam



Practical

Weeks	Topic /Theme	Learning Objectives	IC Codes	MITs	Assessment Tools
Week 1	Orientation to the Orthodontic department Impression taking	 Develop familiarity with orthodontic instruments & appliances Demonstrate knowledge of the techniques of history taking & clinical examination Demonstrate the techniques of impression taking & bite registration 	IC1 to IC 6	Demonstration	OSCE/Practical exam
Week 2	Cast Analysis	 Practice the basic technique of performing cast analysis 	IC1 to IC 6	Demonstration	OSCE/Practical exam
Week 3	Basic wire bending exercises	 Demonstrate skills of basic wire bending in Orthodontics 	IC1 IC2	Demonstration	OSCE/Practical exam
Week 4	Lateral Cephalometry	 Demonstrate skills in lateral cephalometric tracing Perform the lateral cephalometric analysis 	IC 1 IC 2 IC 4	Demonstration	OSCE/ Practical exam
Week 5	Lateral Cephalometry	 Demonstrate skills in lateral cephalometric tracing Perform the lateral cephalometric analysis 	IC 1 IC 2 IC 4	Demonstration	OSCE/ Practical exam

Oral & Maxillofacial Surgery

S no	TOPIC	LEARNING OBJECTIVES	IC	MITS	ASSESSMENT	LEARNING OUTCOMES
		At the end of lecture, student should be able	CODE		TOOL	At the end of term, student
		to				will be able to
01	ORIENTATION to ORAL & MAXILLOFACIAL SURGERY	 KNOWLEDGE Describe role of maxillofacial surgery in health care system, domains of Oral Surgery Describe Multidisciplinary Team role/approach in a health care setting 	IC1 IC2	LGIS		Appraise the significance of Oral and maxillofacial Surgery and its application
02	EXODONTIA	 KNOWLEDGE Define Exodontia Describe steps of history taking & patient examination Order and Interpret relevant laboratory and radiological investigations. Enlist indications & contraindication for closed/simple extractions Describe Open & Closed extraction State the protocol to manage anxious patients before and during complicated exodontia Describe various physical forces and their application in forceps 	IC1 IC2	LGIS SGD TUTORIAL PRACTICAL	SUMMATIVE MCQ,SAQ, OSPE,VIVA FORMATIVE DOPS ASSIGNMENT WARD TEST CLASS TEST	 Diagnose & perform open extraction with profound anesthesia. Ascertain difficulty index of impacted teeth and complicated exodontia along with appropriate referral to Oral & Maxillofacial Surgeon when required. Make appropriate referral and seek

Smooth of Modes Sciences Taxas	and elevators used for	consultation from
	exodontia	primary
	Describe radiographic	consultant in case
	interpretation in exodontia	of underlying
	State the justification for	other medical
	leaving rootfragments in the	condition/disease
	socket	, when required.
	Enlist indications & contra-	
	indications for open extractions	
	 Describe the etiology and management of Dry-socket 	
	management of bry socket	
	Define Impacted tooth	
	Enlist Etiology of impaction	
	Enlist teeth most common impacted teeth	
	Demonstrate mucoperiosteal flap	
	in the oral cavity related to	
	exodontia	
	Classify impacted 3 rd molar	
	Determine the level of difficulty	
	for extraction of Maxilla &	
	Mandible impacted teeth	
	Describe the management of a	
	patient with an impacted third	
	molar	
	Discuss the need for Discuss the need for the n	
	prevention of complications	
	Manage the following	

complications during and after

exodontia:

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	Soft tissue injuries Root fracture/ displacement Injury to adjacent teeth Injury to adjacent osseous - structures Oro-antral communications Postoperative bleeding Delayed healing and infection Fracture of the mandible Classify Impacted Canine Describe the various methods (clinical / radiological) to locate an impacted canine Iist and select appropriate treatment option for a patient with an impacted canine Plan the sequence of multiple extractions SKILL SKILL
	 Ascertain appropriate medical history and perform examination related to Exodontia patient Manage anxiety patient using anxiety reduction protocol with P.O medication Identify appropriate armamentarium of Exodontia Order appropriate investigations (laboratory & radiological) in view

HITEC	of patient previous history (medical & dental) and examination findings. Interpret radio logically a tooth that require extraction Interpretation and determine difficulty index of Impacted 3 rd
	molar tooth by Radiological and clinical means • Use of elevators and forceps according togeneral and mechanical principles • Manage a simple exodontia patient from pre-operative, intra-operative to post-operative phase • Diagnose and manage Dry socket • perform close extraction of a patient reporting in OPD for tooth
	extraction ATTITUDE Respect patients Acquire Comprehensive History Acquire Informed Consent KNOWLEDGE
	Describe LA, its pharmacology, MOA, types, contents of cartridge Describe Local Anaesthesia dosages, toxicity and systemic manifestations

IC3

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Sciences Texte		Describe Landmark of various LA	IC4			
		BLOCK techniques of maxilla	IC5			
		Describe Landmark of various LA	IC6			
		BLOCK techniques of mandible				
		Describe role of Vasoconstrictor in	IC1			
		Local Anaesthesia	IC1			
		SKILL	IC3			
		Identify the anatomical land marks	IC4			
		on patient for appropriate LA	IC5			
		Technique	IC6			
		Chose and perform appropriate LA	104			
		technique for relevant tooth	IC1 IC2			
		extraction	102			
		ATTITUDE				
		Respect patients	IC1			
		Acquire Comprehensive History	IC2			
		Acquire Informed Consent	IC3			
		·	IC4			
			IC5			
			IC6			
	LOCAL ANESTHESIA		IC1			
			IC2			
			IC3			
			IC4			
			IC5			
			IC6			
03	MEDICAL EMERGENCY	KNOWLEDGE		LGIS, SGD,	SUMMATIVE	 Prevent a medical
		 Evaluate a dental patient by Medical history & Physical examination 	IC1 IC2	TUTORIAL,PBL, PRACTICAL	MCQ,SAQ, OSPE,VIVA	emergency in a dental setting by

 Pulmonary Renal Hepatic Haematological Neurological Patients taking steroids, blood thinners Manage pregnant and postpartum dental patient Endocrine Disorders Discuss the equipment and drugs of an emergency cart Discuss role of team work in a medical emergency management Discuss the management of following medical emergencies in a dental setting Vasovagal Syncope Hypoglycaemia Chest Pain 	
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Hyperventilation

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MACON COOK	and Palas		 Angina Pectoris Myocardial Infarction COPD Asthma Foreign Body Aspiration Anaphylaxis Adrenal Crisis SKILL Work as team member in management of a medical emergency Identify relevant emergency drug from emergency cart Obtain appropriate medical and drug history for prevention and management of any medical emergency ATTITUDE Respect patients Acquire Comprehensive History Acquire Informed Consent 	IC1 IC2 IC3 IC4 IC5 IC6			
	04	BASIC SURGICAL SKILLS	 Knowledge Develop a surgical diagnosis Describe basic necessities and armamentarium for surgery Describe basic principles of incisions in oral surgery Define these terms related to oral surgery flaps: height, base, width (apex), length, triangular, 	IC1 IC2	LGIS, PRACTICAL, TUTORIAL, SGD	SUMMATIVE MCQ,SAQ, OSPE,VIVA FORMATIVE DOPS ASSIGNMENT WARD TEST CLASS TEST	Design an appropriate surgical flap according to procedure, with application of flap principles

rectangular, submarginal lunar, corners, and sides Describe principle of Flap Describe various suturing Techniques used in Oral Describe basic principles suturing SKILL Draw and label the follow used in oral surgery I. 3 & 4 corner flaps and the variations. II. Envelop flap III. Sub marginal/semilunar IV. Y flap for tori removal V. Flap for impacted maxilla canines. VI. 1st and 2nd stage implar VII. Flap for impacted wisdon Perform following Suturitechniques on rubber sheeld. I. Figure of eight II. Interrupted III. Continuous locking IV. Continuous Non Locking V. Vertical Matrix VI. Horizontal Matrix KNOWLEDGE Describe the means of achemostasis and manager dead space Enlist physical and chemicif tissue damage describe the physiology of (soft tissues & bone) repprimary intention, secon	o Design g material Cavity of wing flaps eir flaps ary at surgery method local local local causes of wound air:	 Identify various suturing techniques and their application Apply clinically the principles of cross infection control Recognize a tissue injury, its type and management Obtain informed consent from patient related to exodontia and capable of making a referral when required
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intention, healing of an extraction wound and osseo- integration • describe the factors that impair wound healing • Classify nerve injuries (Seddon & Sunderland). • Assess a patient with neural deficit • Describe the principles of management of a nerve injury. • Describe consent, and its types. • Describe components of informed consent • Describe basic pillars of medical ethics • Describe the requirement of referral, and how to make a referral SKILL • obtain informed consent from patients • Write a referral letter to a medical/dental specialist • Apply the principles of Infection control & Aseptic Techniques in surgical practice ATTITUDE • Takes consent from patient • Greets patient • Introduce himself to patient	IC1 IC2 IC3 IC4 IC5 IC6 IC1 IC2 IC3 IC4 IC5 IC6		
 KNOWLEDGE Define sterilization and disinfection. Describe various sterilization techniques, tests to ensure sterilization. 			

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		 Describe various Disinfection means and methods. Describe AUTOCLAVE, its principle and use. Define Clean and sterile techniques and their application in oral surgery. Describe Universal Precautions and Cross Infection Control Describe a Needle Stick Injury, its prevention & management SKILL Apply & Follow the principles of Cross Infection control & Aseptic Techniques in surgical practice Management of Needle Stick Injury 	IC1 IC2 IC3 IC4 IC5 IC6			
05	TRAUMA ATLS MANDIBLE FRACTURE	 State etiology of maxillofacial trauma Describe ATLS and BLS Describe various airway management maneuvers (surgical & non-surgical) classify mandibular fractures according to the type, site and favorability to reduction Enlist complications of mandibular fractures describe open & closed methods of fracture reduction & treatment 	IC1 IC2	LGIS,CBL, TUTORIAL,SGD , PRACTICAL	SUMMATIVE MCQ,SAQ, OSPE,VIVA FORMATIVE DOPS ASSIGNMENT WARD TEST CLASS TEST	

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Sciences Taxila	<u>SKILL</u>	IC1		
	Examine patient with suspected	IC2		
	mandibular fracture	IC3		
	 diagnose mandibular fractures by 	IC4		
	eliciting signs & symptoms and	IC5		
		IC6		
	order a merpret radiograpme			
	investigations related to mandible			
	fracture			
	 formulate a treatment plan for 			
	mandibular fractures in adults and			
	children			
	 Perform MMF via eye lets on study 			
	models	IC1		
	ATTITUDE	IC2		
	Respect patients	IC3		
	Acquire Comprehensive History	IC4		
		IC5		
	Acquire Informed Consent	IC6		



Practical

Week	Topic/ Theme	Learning Objective	M.I.Ts	Assessment Tools	Instructor
01	Orientation to OMFS	 Orientation to OMFS Perform Chair & Operator Positioning Obtain appropriate History perform Clinical Examination Perform Prescription Writing Perform the Examination of head and neck region 	*SGD/ Demo *Practical	*OSPE *VIVA *DOPS	*Dr. Maimoona
02	Local Anesthesia	Identify & Describe LA	*SGD/ Demo *Practical	*OSPE *VIVA *DOPS	*Dr.Fatima
03	Exodontia	 Identify and select appropriate Armamentarium Describe and apply Principles of instruments used in exodontia Application and Handling of elevators & forceps. Interpret Radiological findings related to exodontia: Periapical & OPG, impacted canine & 3rd molars 	*SGD/ Demo *Practical	*OSPE *VIVA *DOPS	*Dr.Fatima *Dr. Sadia
04	Medical Management of Compromised Patients TMJ and Pathology	 Describe Common Medical Emergencies with Prevention, Diagnosis & Management Enlist Emergency trolley drugs Operate & handle Oxygen Cylinder Perform Clinical Examination of TMJ, Salivary Glands and Lymph Nodes Perform Reduction of Dislocated TMJ on skull models 	*SGD/ Demo *Practical *PBL	*OSPE *VIVA	*Dr. Maimoona *Dr.Sadia
05	Formative Assessment	DOPS followed by individual feedback		DOPS	Dr Maimoona Dr Fatima

06	Basic Principles of Surgery	 Describe various 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 	*SGD/ Demo *Practical	*OSPE *VIVA *DOPS *Assign-ment	*Dr. Sadia
		 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 			
07	Oral & Maxillofacial Trauma	 Describe various reduction & fixation techniques used in maxillofacial fracture management 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 (OPG & CT Scan) Identification of armamentarium for Major & Minor Surgical Procedures CBL 	*SGD/ Demo *Practical *CBL	*OSPE *VIVA *Assign- ment	*Prof.Dr.Irfan Shah *Dr. Maimoona *Dr.Fatima
08	Ethics	 Describe the components of Informed Consent Explain the Basic pillars of medical ethics Perform a visit to operation theatre Explain Needle stick injury 			
09	ASSESMENT WEEK	 Complete and Submit LOG BOOKS Submit Assignments End of Rotation Ward Test 		*OSPE *VIVA *Assign- ments *Attendance	All Faculty



Pedodontics

ТОРІС	Topic / Theme	Learning Outcome At the end of each module, student will		IC Codes	MITs	Assessment method
		Knowledge	Skills			
INTRODUCTION	Philosophy of planning dental treatment in children	 Explain the principles and objectives of planning dental treatment specifically tailored for children. Recognize the influence of child behavior on treatment planning decisions. 	Develop individualized treatment plans for pediatric patients. Provide clear instructions on post-treatment care and preventive measures to parents		Lecture/Self- directed learning / Assignment	MCQ+ SAQ
RADIOLOGY	Principles of radiation safety and the specific considerations for pediatric patients	 Explain the potential risks and benefits of dental radiographs in children. Differentiate between normal variations and abnormal findings in dental radiographs of children. • 	 Demonstrate properApositioning and exposure techniques to obtain high-quality pediatric dental radiographs. Identify and correct common errors in radiographic positioning to improve image quality. 		Lecture/Case- based learning/chairside learning	MCQ+ SAQ

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Dental caries in children and adolescents	Caries aetiology, risk assessment, preventive strategies, restorative options	 Etiology and Pathogenesis of Dental Caries Explain the microbial and dietary factors that contribute to caries initiation and progression in children Describe evidence-based preventive measures, such as fluoride therapy and sealants, to minimize caries incidence in children Apply appropriate diagnostic tools, such as visual-tactile examination and radiographic interpretation 	 Perform minimally invasive restorative procedures, such as dental fillings and stainless steel crowns, in children Apply non-surgical caries management techniques, Management of ECC 	Lectures; Case- based learning/Chair-side learning	MCQ+ SAQ
Prevention of dental diseases in children	Oral hygiene measures, fluoride therapy, dietary counselling, sealants, oral health education, safety and toxicity of fluorides	 Describe the unique oral health needs and challenges specific to children at different stages of growth and development. Describe the long-term benefits of early preventive interventions on oral health throughout a child's life 	 Fluoride application and silver diamine fluoride (SDF) treatment. Instruct children and parents on the correct usage of preventive products, such as fluoride toothpaste and mouth rinses. 	Lectures; Case- based learning/Chair-side learning	MCQ+ SAQ

7760			Application of pits and fissure sealents		
Psychological and pharmacological management of children's behaviour	Behaviour guidance techniques, communicati on skills, pharmacologi cal and non pharmacologi cal options for anxiety and pain management	 Describe the typical behavioral patterns and emotional responses of children at different developmental stages Identify and apply behavior management strategies specific to pediatric dental care, such as positive reinforcement and tell-showdo techniques. 	Address children's concerns and questions in a compassionate and reassuring manner Apply a range of behavior management techniques to help children cope with dental procedures	Lectures; Case- based learning/Chair-side learning	MCQ+ SAQ
Restorative dentistry for primary teeth	Anatomic differences between primary and permanent dentition, Materials and techniques for primary tooth restorations, Sealants and	 Understand the morphology and characteristics of primary teeth. Learn various cavity preparation techniques suitable for primary teeth and how to place restorative materials like dental composites or glass ionomer cements to restore the teeth. 	Demonstrate proficiency in cavity preparation techniques appropriate for primary teeth, considering their size, morphology, and pulp proximity. Educate parents or guardians about the importance of	Lectures; Case- based learning/Chair-side learning	MCQ+ SAQ

primary tooth restorations and

sealants

conservative

adhesive restorations.



Department of Operative Dentistry Academic Calendar Final Year 1st Term 2025

WEEK	TOPIC	NO. OF LECTURES	DELIVERED BY
st Week	Introduction to Operative Dentistry	01	
	Sterilization & infection control	01	Prof Dr Beenish
nd Week	Sterilization & infection control	01	
	Cariology /caries risk assessment	01	Prof Dr Beenish
rd Week	Cariology /caries risk assessment	01	
	Prevention & management of caries	01	Prof Dr Beenish
th Week	Prevention & management of caries	01	Prof Dr Beenish
	Fundamentals of tooth preparation	02	
th Week	Class test	01	
N	Management of medically compromised patients	01	Prof Dr Beenish
th Week	Dental amalgam	02	Dr Sumaiya
th Week	Diseases of pulp & periradicular tissues	02	Prof Dr Beenish
th Week	Diseases of pulp & periradicular tissues	03	Prof Dr Beenish

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9 th Week	Diseases of pulp & periradicular tissues	02	Prof Dr Beenish
10 th Week	Dental composites	02	
	Adhesion to enamel & dentin		Dr Sharaz
11 th Week	Adhesion to enamel & dentin	02	
			Dr Sharaz
12 th Week	Dental Cements	01	Dr Sumaiya
	Occlusion	01	Dr Sharaz
13 th Week	1 st Term Exam		



Prosthodontics

1 ST TERM						
WEEKS	TOPIC	NO. OF LECTURE	LECTURE DELIVERED BY			
WEEK 1	Introduction to Fixed Partial dentures	01	Dr. Aamir Rafiq			
	Treatment Planning-I	02	Dr. Aamir Rafiq			
WEEK 2	Treatment planning -II	02	Dr. Aamir Rafiq			
	Principles of tooth preparation-I	02	Dr. Aamir Rafiq			
WEEK 3	Principles of tooth preparation-II		Dr. Aamir Rafiq			
	Periodontal Considerations	01	Dr. Aamir Rafiq			
WEEK 4	Principles of occlusion	01	Dr. Abdul Muqeet			
	Crown preparations (cast crown, metal ceramic &all-ceramic)	01	Dr. Aamir Rafiq			
WEEK 5	Tissue management and impression making	02	Dr. Aamir Rafiq			
WEEK 6	Interim restorations	01	Dr. Abdul Muqeet			
	Pontic design	01	Dr. Aamir Rafiq			
WEEK 7	Resin retained FPD	01	Dr. Abdul Muqeet			
	Luting agents and cementation	01	Dr. Aamir Rafiq			
WEEK 8	Management of complications	01	Dr. Aamir Rafiq			



	Introduction to patient evaluation for complete denture-I	02	Dr. Sameen Zehra		
WEEK 9	 Introduction to patient evaluation for complete denture-II 		Dr. Sameen Zehra		
	Sequelae of wearing complete denture-I1	02	Dr. Sameen Zehra		
WEEK 10	Sequelae of wearing complete denture-II	02			
	Patient preparation for complete denture-I	02	Dr. Sameen Zehra		
WEEK 11	Patient preparation for complete denture-II	02	Dr. Sameen Zehra		
	Biomechanics of edentulous state	01	Dr. Sameen Zehra		
WEEK 12	REVISION				
WEEK 13	TERM EXAM	VI			



Orthodontics

Week	Day/Date	Topic	Subtopics	No. of lectures	Facilitator
1st Week 2nd Week	Tuesday (04-02-25) Thursday (06-02-25) Tuesday (11-02-25) Thursday	Introduction to Orthodontics	 Definition & its branches Epidemiology Basic terminologies IOTN 	04	Prof. Dr. Waheed
3rd Week	(13-02-25) Tuesday (18-02-25) Thursday (20-01-25) Friday (21-02-25)	Growth & development	 Basic terminologies Methods of studying growth Growth of cranial vault and cranial base Growth of maxilla, mandible and facial soft tissue Theories of growth control 	05	Dr. Hasnain

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4th Week	Tuesday				
	(25-02-25)				
	Thursday	-			
	(27-02-25)				
5 th Week	Tuesday	-	Later stages of growth	02	Dr. Shahzonia
	(04-03-25)		Adolescence and its stages		
	Thursday		Maturational and aging changesRotation of jaws during growth		
	(06-03-25)				
6 th Week	Tuesday	Development of	Prenatal dental development	05	Dr. Shahzonia
	(11-03-25)	dentition	Predental, primary, mixed and paragraph and destition projects.		
	Thursday		permanent dentition periods		
	(13-03-25)		 Eruption stages, sequence and timing 		
7 th Week	Tuesday		 Nolla stages 		
	(18-03-25)		Dental age		
	Thursday		Dimensional changes in dental		
	(20-03-25)		arches		
	Friday	<u>-</u>	Developmental abnormalities		
	(21-03-25)				

8th Week	Tuesday		Class Test		
	(25-03-25)				
	Thursday	Occlusion	Types of occlusion	03	Prof. Dr. Waheed
	(27-03-25)		• CO-CR		
9th Week	Tuesday		Andrew's six keys of occlusion		
	(01-04-25)				
_	Thursday				
	(03-04-25)				
10 th Week	Tuesday	Malocclusion	Etiology of malocclusion	02	Dr. Shahzonia
	(08-04-25)				
_	Thursday				
	(10-04-25)				
11 th Week	Tuesday		Classification of malocclusion	01	Dr. Hasnain
	(15-04-25)				
	Thursday	Diagnostic aids in	Radiology	02	Dr. Hasnain
	(17-04-25)	orthodontics	Lateral cephalometry ORG & RA		
	Friday		OPG & PA ceph		
	(18-04-25)				

	(22-04-25) Thursday	Hand and wrist Radiograph	
13 th Week	(24-04-25)	1 ST TERM EXAM	



Oral & Maxillofacial Surgery

No of lectures=27

Total No of Weeks =13 (12+1) = Academics + Term Exam

Facilitators:

1. Prof.Dr.Irfan Shah

No of lectures: 06

2. Dr. Maimoona Siddiq

No of lectures: 15

3. Dr. Fatima Khattak

No of lectures: 05

4. Dr. Sadia Moin

No of lectures: 01

S#	TOPIC	No of Lectures(L.G.I.S)	Facilitator
01	Introduction to OMFS	01	Prof.Dr.Irfan Shah
02	Medical Emergency Management	05	Dr. Maimoona Siddiq
03	Exodontia	10	Dr. Maimoona Siddiq
04	Basic surgical Skills	05	Prof.Dr.Irfan Shah
05	Mandible Fracture	03	Dr. Fatima Khattak
06	ATLS	02	Dr. Fatima khattak
07	Class Test	01	Dr. Sadia Moin



Paedodontics

Week	Topic	Number of Lectures	Name Of Teacher
2 nd week	Philosophy of planning dental treatment in children	1	Dr Amna Riaz
3 rd – 4 th week	Radiology	2	Dr Amna Riaz
5 ^{th-} 6 th week	Cariology	2	Dr Amna Riaz
7 th week	Prevention of dental diseases in children	1	Dr Amna Riaz
8 ^{th-} 9 th week	Non-pharmacological and pharmacological management of children's behaviour	2	Dr Amna Riaz
10 th week	Sedation	1	Dr Amna Riaz
11 ^{th –} 12 th week	Restorative dentistry for primary teeth	2	Dr Amna Riaz
13 th week	Term Exam		



Learning Resources

Operative Dentistry Department

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

Oral and Maxillofacial Surgery

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

https://www.sciencedirect.com/ https://emedicine.medscape.com/

Orthodontics

- Contemporary Orthodontics William R. Proffit
- An Introduction to Orthodontics Laura Mitchell

Prosthodontics

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

Paedodontics :

Recommended Textbooks

- Paediatric dentistry infancy through Adolescence
 By: Paul S Casamasimo Henry W.fields Dennis j. McTigue, Arthur Nowak
 5th edition Sanders 2013
- Dentistry for the child and Adolescent By Ralph E MacDonald

9th edition must be Mosby.Co 2011

Paediatric Dentistry
 By Richard Welbury ,Monty S Duggal and Marie Therese Hosey
 5th edition Oxford University Press 2018