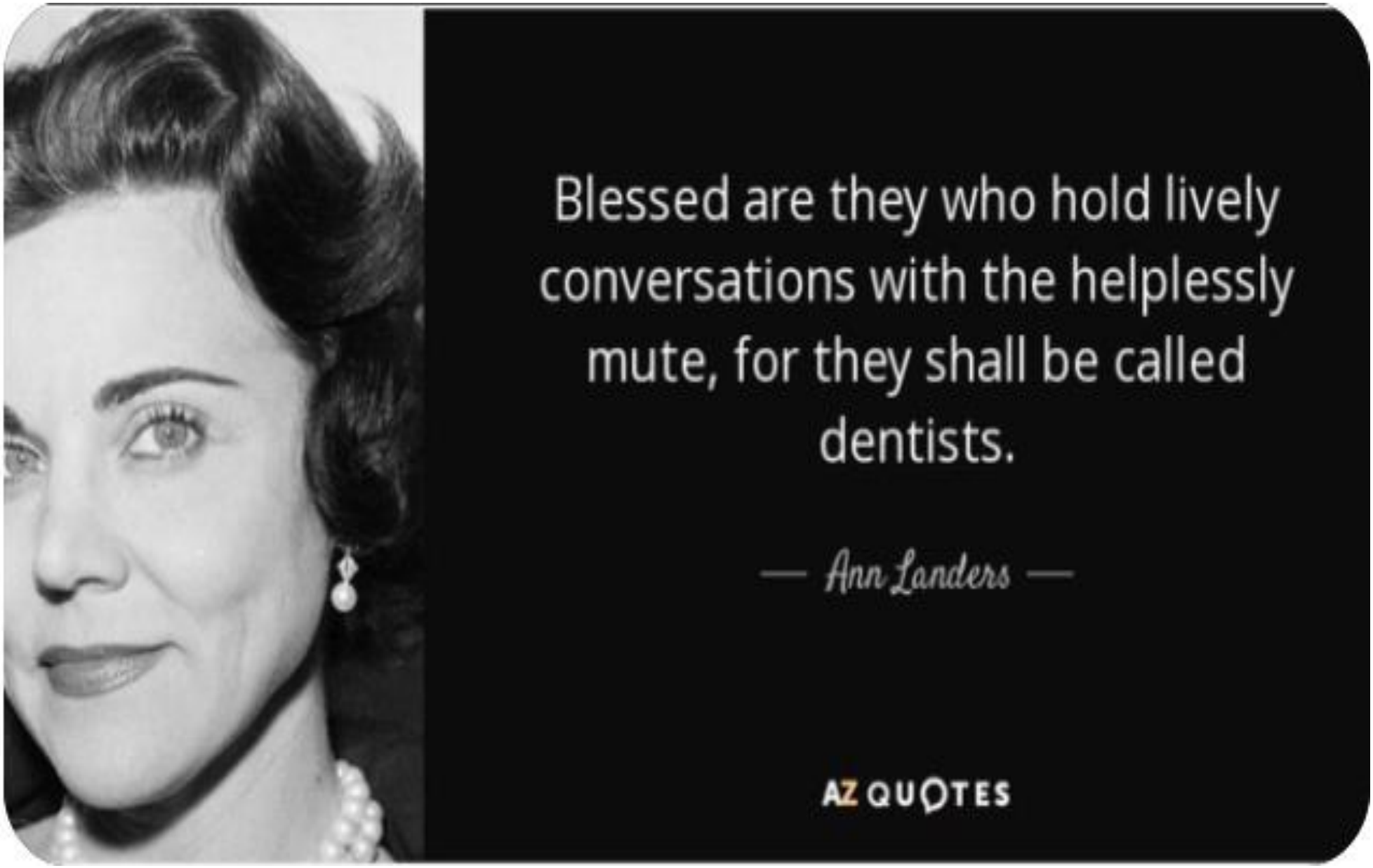
DENTAL COLLEGE HITEC-IMS

Study Guide Y2 – B1 – D25

2nd Year BDS

Coordinator: Dr. Nausheen Ashraf


Blessed are they who hold lively conversations with the helplessly mute, for they shall be called dentists.
— Ann Landers —
AZ QUOTES

CONTENTS

LIST OF ABBREVIATIONS

- PMCD Pakistan Medical & Dental Council
- NUMS National University of Medical Sciences
- LGIS Large Group Interactive Session
- SGD Small Group Discussion
- SDL Self-Directed Learning
- CBL Case Base Learning
- LGIF Large Group Instructional Format
- MIT Mode of Information Transfer
- EOB End of Block Examination
- TOS Table of Specification
- OSPE Objectively Structured Practical Examination
- OSCE Objectively Structured Clinical Examination
- SEQ Structured Essay Questions
- SAQ Short Answer Question
- MCQ Multiple Choice Question
- ANS Automatic Nervous System
- GIT Gastrointestinal Tract
- EECS Early Exposure to Clinical Skills
- FGD Focus Group Discussion
- 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 lifelong learning oral health care professionals.

Block Committee

Coordinator, Chair Block Curriculum Committee: **Assistant Professor Dr. Nausheen Ashraf**

Head of Department, Dental Materials. Contact No: 03213889865

S. No.	Name	Designation	Departments	Contact Number
1.	**Dr Maria Rabbani**	Assistant Professor	Community Dentistry	0334-5439118
3.	**Dr Nausheen Ashraf**	Assistant Professor	Dental Materials	0321-3889865
4.	**Dr Shazana Rana**	Professor	Pharmacology	0332-5272131
5.	**Dr Sadia Israr**	Assistant Professor	General Pathology	0320-5079151
6.	**Dr Sharaz Ahmed**	Assistant Professor	Preclinical Operative	0335-5067704
7.	**Dr Sameen Zahra**	Assistant Professor	Preclinical Prosthodontics	0333-5641998
8.	**Dr Faizan Munir**	Assistant Professor	Dental Education	0334-0031031
9.	**Miss Amna Fayyaz**	Lecturer	Behavioural Sciences	0343-0701997
10.	**Muhammad Zain**	Student	CR, 3rd Year	0304-1823151
11.	**Nimra Mumtaz**	Student	GR, 3rd Year	0335-2424116

Curriculum Overview & Implementation

Preface

The curriculum meets the standards of the Pakistan Medical & Dental Council, the Higher Education Commission of Pakistan, and the World Federation of Medical Education. Therefore, upon completing the program, our students have the required competencies defined worldwide in a graduate doctor.

Model

The curriculum of Dental College, HITEC-IMS is based on the hybrid model of educational strategies. However, we have incorporated some elements of SPICES model i.e., it's student-centred, integrated, community-oriented and systematic aspects. As a result, our curriculum has evolved, considering traditional, experiential, behavioural, constructivist, and attributional perspectives of curricula.

Organization

The curriculum is organized and integrated along important vertical and horizontal dimensions. The content taught is integrated concurrently in a horizontal organization and vertically across the four years of BDS program. The course of the second year is divided into three blocks. In each block, the sequencing of the content is logical and integrated.

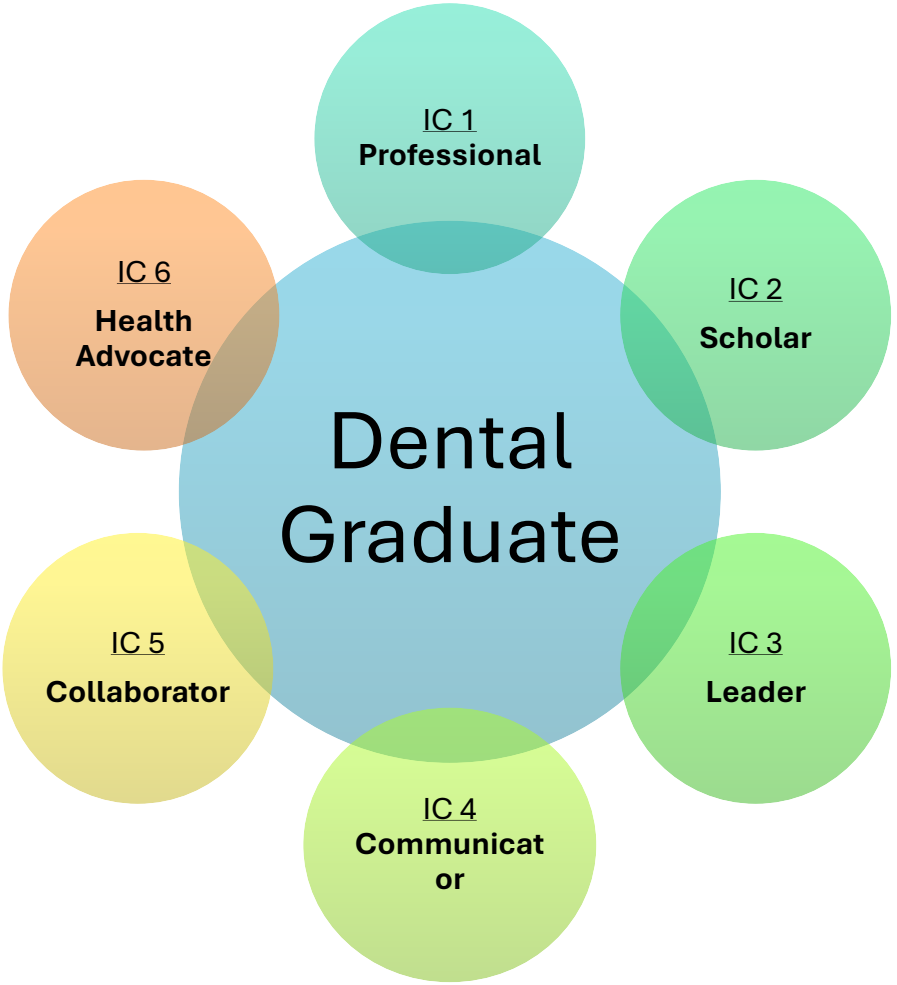
Teaching Strategies

Multiple teaching strategies are used. Large group interactive sessions (LGIS) are used to provoke thought, understanding and to standardise the delivery of the concept. It helps them to understand the general theme or subject matter, updated research, and best evidence medical information. We are teaching clinical implications of each topic to integrate basic and clinical sciences. This encounter is based on experience that is contextual, realistic, and relevant. Small group discussions encourage students to learn socially and refine their schemas. Working in laboratories provides experiential and hands-on learning.

Assessment

The summative assessment includes end-of-block (EoB) and pre-annual examination. Formative assessment is based on assignments, presentations, flipped classroom, quizzes. After the block exams and the end of the academic year, a pre-annual examination will be conducted according to the standards outlined by NUMS.

1. Institutional Competency Framework



2. Alignment of Block Outcomes with Institutional Competencies

S. No.	Block Outcomes	Institutional Competencies
1.	Correlate the management of general pathological and community-based diseases in subsequent years of training and practice	IC 1 to IC 6
2.	Correlate the basic properties of auxiliary and restorative materials with their application in the laboratory and relevant clinical conditions in a spiral manner	IC 1, IC 2, IC 6
3.	Explain the use of instruments in restorative work with specific relevance to caries	IC 1 to IC 6
4.	Integrate the fundamental concepts of sociology, anthropology and psychology with ethical, medical and dental practice considerations	IC 1 to IC 6
5.	Apply a constructivist approach to developing academic writing skills along with biostatistics	IC 1, IC 2, IC 4

3. Academic Calendar

SECOND YEAR BDS SESSION 2025			
BLOCK - 1 (11+1 = 12 WEEKS)			
3rd March 2025 to 5th June 2025			
Activity	**Duration**	**From**	**To**
Academics	11 weeks	3rd March 2025	30th May 2025
Eid ul Fitr	01 week	31st March 2025	4th April 2025
Sports week	01 week	14th April 2025	18th April 2025
Block exam	1 week	2nd June 2025	5th June 2025
Block - 2 (11+1 = 12Weeks)			
30th June 2025 to 19th September 2025			
Academics	11 weeks	30th June 2025	12th September 2025
Eid-Ul Azha + Summer Vacations	04 weeks	7th June 2025	29th June 2025
Block Assessment	01 week	15th September 2025	19th September 2025
Block - 3 (9+3 = 12 Weeks)			
22nd September 2025 to 30th December 2025			
Academics	9 weeks	22nd September 2025	21st November 2025
Block Assessment	1 week	24th November 2025	28th November 2025
Send-Up	3weeks	8th December 2025	30th December 2025
Pre-Prof Leave	4 weeks	31st December 2025	23rd January 2026
2nd Professional Exam (Tentative)	26th January 2026 as proposed by NUMS		

Day	8:30-9:20	9:20-10:15	10:15-11:05	11:05-11:20	11:20-12:10	12:10-1:00	1:00-1:30	1:30-2:30	2:30-3:30
Monday	**Community-A / Dental materials-B**		**Topic**	Break			Break		
	Practical		MIT		LGIS	LGIS		Tutorial	
	A-(Topic)		Facilitator(s)						
	B-(Topic)		**Subject**		**Dental Materials**	**Community Dentistry**		**Pharmacology**	
Tuesday	**Dental materials-B / Community-A**								
	Practical		LGIS		LGIS	LGIS		Tutorial	
	B-(Topic)								
	A-(Topic)		**Pathology**		**Dental Materials**	**Community Dentistry**		**Pathology**	
Wednesday	**V.I Operative –B / V.I Prosthodontics- A integrated with DM** A-(Topic) B- (Topic)								
			LGIS		LGIS	LGIS		Tutorial	
			Pharmacology		**Pathology**	**Community Dentistry integrated Research**		**Community Dentistry**	
Thursday	**Dental materials**		**Pharmacology**		**DM LGIS/Mentoring session Slot in the second week of month**	**General Pathology**		**Pathology-A/Pharmacology B Practical A- (Topic) B-(Topic)**	
	Tutorial/SGD		LGIS			LGIS			
Friday	**Jr Operative-A/ Jr Prosthodontics-B Integrated with DM**							**Pathology-B/Pharmacology-A**	
	Skill Lab		LGIS		LGIS	LGIS		Practical	
	B-(Topic)							A-(Topic)	
	A-(Topic)		**V.I Operative**		**V.I Prosthodontics**	**Behavioural Sciences**		B(Topic)	

Dr. Nausheen Ashraf	Dr Shazana	Dr Amir	Dr. Sharaz	Dr. Sadia	Dr. Maria Rabbani	Dr. Irfan Shah
Coordinator 2nd Year BDS & HoD Dental Materials	**HoD Pharmacology**	**HoD Prosthodontics**	**Pre-clinical Operative**	**HoD Pathology**	**HoD Community Dentistry**	**Principal**

Assessment

Types and Schedules

Assessment is continuous via class tests, quizzes, and assignments by the department. Continuous assessment is separate from the block exam at the end of 11 weeks of instruction. The purpose of continuous assessment is both formative and summative.

Formative assessment tests may be written assignments, group presentations and provision of feedback to the students during the teaching session. The purpose of formative assessment is to provide feedback to the students for improvement and for teachers to identify areas where students need further guidance.

From the 2nd week onwards, the class tests of Community Dentistry, Pharmacology, Dental Materials, Preclinical subjects, and General Pathology will be held on a rotation basis, respectively. Finally, the 12th week will be dedicated to end-of-block (EOB) exams. Above mentioned assessment tools will form part of continuous summative assessment and, along with pre-annual exams, will contribute to marks in internal assessment to be submitted to the university.

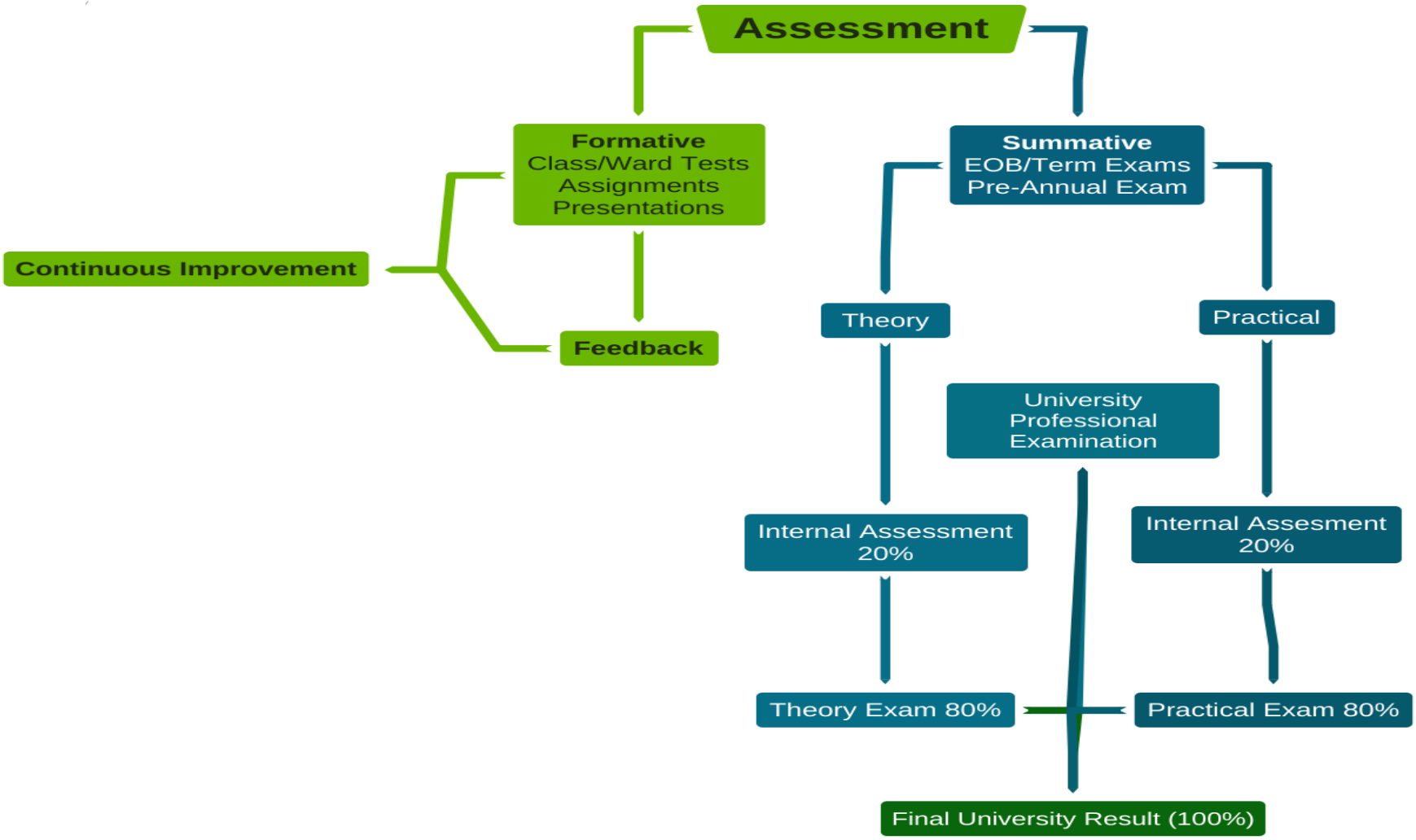
Students must secure 70% marks in exams, as per the University and PM&DC criteria.

The students who fail in the end of the block exam will be allowed to attend the next block; however, their internal assessment will be affected accordingly.

Internal assessment criteria for submission of internal assessment marks of Second Professional Examination NUMS:

1. The weightage of internal assessment shall be 20 marks for a 100 marks paper (20%) in the annual examination.
2. Attendance, class tests, end-of-block examinations, and pre-annual examination shall contribute to internal assessment.

1. Assessment Map



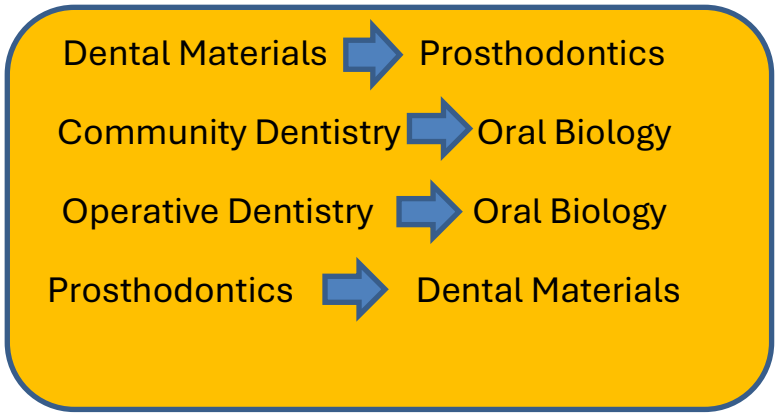
BLOCK 1 –1ST SPIRAL

MODULE I: DENTAL HEALTH

THEME: ESSENTIALS OF DENTISTRY II

DURATION: 06 WEEKS

Integration of Disciplines in This Module



LEARNING OUTCOMES FOR MODULE I BLOCK1

1. DENTAL MATERIALS

S. No.	Topics/Theme	Learning Outcomes	Learning Objectives	Integrated Lo	MIT	Assessment Tools
1	Properties of Dental Materials	• Outline physicomechanical, chemical, thermal and rheological properties of dental materials. • Relate properties of restorative materials to clinical applications.	**Knowledge** • Describe the structure of matter. • Explain the principles of adhesion among dental materials. • Differentiate between primary and secondary bonds. • Describe the principles of surface interaction including the concept of substrate, adhesive, adherend and processes which occur at the interface. • Demonstrate knowledge of the fundamental		Interactive Lectures SGDs CBLs	MCQs SAQs Viva

			mechanical, chemical, thermal and physical principles that make the foundation of the clinical behaviour and application of dental materials. • Infer stress-strain graphs for the elaboration of mechanical properties. • Differentiate between various properties of materials e.g. dimensions of colour, tarnish and corrosion, fracture toughness and resilience, syneresis and imbibition, creep and flow etc. • Differentiate between erosion, abrasion,			

			abfraction and attrition. • Outline the need for biological considerations regarding the selection and performance of dental materials for clinical applications. • Differentiate between toxicity, inflammation and allergic response. • Explain nickel hypersensitivity, mercury toxicity and latex allergy.			
			Skill • Demonstrate the use of weighing scales, cylinders, and beakers for manipulation of materials • Perform wire bending activity (Bend Stainless Steel wire to make		Practical Demonstration	OSPE

			different alphabets A, C, D, S, T and X			
2	Gypsum Products	• Relate chemistry and properties of gypsum products, waxes and investment materials to relevant clinical procedures	**Knowledge** • Classify gypsum Products. • Describe the sources, chemistry and properties of gypsum products used in dentistry. • Relate the composition and crystalline structure of dental stone and dental plaster. • Compare the dental stone and dental plaster. • Describe setting reactions of dental stone and dental plaster. • Describe the manipulation factors which affect the setting time and physico mechanical		LGIS SGD CBL	MCQs SAQs Viva

			properties of the final set product. • Explain the methods used for the disinfection of Dental gypsum models and study casts. • Demonstrate the proper mixing technique of dental gypsum used for preparing study models and casts.			
			Skill • Demonstrate the manipulation of Gypsum. • Perform the fabrication of the plaster slab.		Practical Demonstration	OSPE
3	Dental Waxes	• Describe the classification, properties, and uses of Dental Waxes	**Knowledge** • Describe the classification, properties, and uses of Dental Waxes.		LGIS SGD CBL	MCQs SAQs Viva

		• Explain applications of waxes in dentistry.	• Explain applications of waxes in dentistry • Identify different types of dental waxes e.g. Sticky, Ortho, Inlay, Modelling and Carding wax. • Manipulate Modelling wax.			
			Skill • Fabricate wax pattern for acrylic partial dentures • Identify the types of waxes available in the dental laboratory.	PROSTHODONTICS: • Demonstrate fabrication of Occlusal rims & dental cast. • Manipulate wax & plaster	Practical Demonstration	OSPE

2. COMMUNITY DENTISTRY

S. No.	Content/ Topic	Learning Outcomes	Learning Objectives	Integrated Lo	MITs	Assessment Tools
		At the end of this block students will be able to:				
1	Introduction to Public and Dental Public Health	• Correlate the fundamental concepts of public health and public health dentistry to effectively contribute to community health and oral health initiative	**Knowledge** • Define public health • Define the vision and mission of public health • Discuss essential public health services • Describe different characteristics of public health methods • Describe public health techniques • Define objectives of public health dentistry • Define dental public health • Discuss core areas in public health dentistry.		LGIS SGD CBL	MCQs SAQs Viva
2	Ergonomics, History Taking & Clinical Examination	**Skill** • Demonstrate practical skills related to Ergonomics • Practice different components of history taking. • Apply the knowledge of intra-oral & extra-oral examination.			Practical & Demonstrations	OSPE

3. VERTICALLY INTEGRATED OPERATIVE DENTISTRY

Sr. No.	Topic/ Theme	Learning Outcome	Learning Objectives	Integrated LOs	MIT	Assessment Tools
			At the end of the session students should be able to:			
1.	Introduction To Operative Dentistry	• Appraise factors affecting operative treatment and the future demand	**Knowledge** • Appraise the basic need to study the biological basis of operative dentistry • Highlight the importance of the development of psychomotor skills.		LGIS SGD	SAQ MCQ Viva
2.	Introduction To Armamentarium	• Identify instruments & equipment used in restorative work, their uses & handling	**Knowledge** • Enumerate the basic equipment used in operative dentistry • Enlist clinical use of the armamentarium • Identify and classify instruments included in the armamentarium. **Skill** • Demonstrate the prevention of hazardous effects of armamentarium. • Demonstrate adequate handling & cleaning of instruments. • Illustrate appropriate ergonomic chair positioning		LGIS SGD	SAQs MCQs Viva

Sr. No.	Topic/ Theme	Learning Outcome	Learning Objectives	Integrated LOs	MIT	Assessment Tools
			At the end of the session students should be able to:			
3.	Isolation & Moisture Control	• Perform single tooth isolation & quadrant isolation using rubber dam	**Knowledge** • Define isolation • Enumerate methods of isolation • Discuss the indications and advantages of isolation during operative work • Identify parts of rubber dam components & their uses.		LGIS SGD	MCQs SAQs Viva
4.	Rubber Dam		**Skill** • Demonstrate rubber dam application methods • Demonstrate the placement of a rubber dam for a single tooth isolation • Demonstrate the placement of the rubber dam in the posterior arch/ anterior arch/cross arch		Practical Demonstration	OSPE
5.	Dental Cariology	• Explain the pathophysiology of carious lesion	**Knowledge** • Define caries • Identify the etiological factors leading to caries • Classify dental caries	**Oral Biology** • Review the occlusal morphology of teeth	LGIS SGD	MCQs SAQs Viva

Sr. No.	Topic/ Theme	Learning Outcome	Learning Objectives	Integrated LOs	MIT	Assessment Tools
			At the end of the session students should be able to:			
			• Discuss the clinical characteristics of dental caries • Describe the steps involved in caries diagnosis • Outline definitive management of caries • Discuss the prevention of caries			
6.	Cavity Preparation	• Appraise the principles involved in cavity preparation	**Knowledge** • Define tooth preparation • Justify the need for restoration • Classify tooth preparations and their terminologies • Enlist the objective of tooth preparation • Identify the requirements of different armamentariums for specific cavity design • Describe the various stages and steps involved in tooth preparations • Explain the method of cavity preparation according to the extent of the lesion	**Oral Biology** • Review the occlusal morphology of teeth	LGIS SGD	MCQs SAQs Viva

Sr. No.	Topic/ Theme	Learning Outcome	Learning Objectives	Integrated LOs	MIT	Assessment Tools
			At the end of the session students should be able to:			
			• Outline the principles of long-term maintenance of restorations in the oral cavity.			

4. VERTICALLY INTEGRATED PROSTHODONTICS

S. No.	Topics/ Theme	Learning Outcomes	Learning Objectives	Integrated LOs	MITs	Assessment Tools
1	Introduction To Prosthodontics	• Appraise the scope of Prosthodontics as a speciality	**Knowledge** • Define prosthodontics • Enlist the different branches of Prosthodontics and their application in everyday life • Describe the implications of not addressing tooth loss at an appropriate time • Discuss the effect of a prosthetic replacement on the quality of life of an individual		LGIS SGD	MCQs SAQs Viva
2	• Complete Denture • Anatomical Landmarks of denture bearing area.	• Correlate the significance of anatomical landmarks of the maxilla concerning biomechanics of a complete denture.	**Knowledge** • Enlist the anatomical landmarks of the maxillary arch. • Differentiate between the supporting structures, limiting structures & relief areas • Differentiate between the primary stress-bearing area and the secondary stress-bearing area • Discuss the significance of relevant oral structures in relation to a complete denture.		LGIS SGD	MCQs SAQs Viva

			Skill • Identify the anatomical landmarks of the maxilla on a dental cast.		Practical Demonstration	OSPE
		• Correlate the significance of anatomical landmarks of the maxilla concerning biomechanics of a complete denture	**Knowledge** • Enlist the anatomical landmarks of the mandibular arch • Differentiate between the supporting structures, limiting structures &relief areas Differentiate between the primary stress-bearing area and secondary stress-bearing area • Discuss the significance of relevant oral structures in relation to a complete denture		LGIS	MCQs SAQs Viva
			Skill • Identify the anatomical landmarks of the mandible on cast • Identify primary stress-bearing areas		Practical Demonstration	OSPE
3	Impressions for complete denture	• Identify the factors affecting impression registrations in complete dentures	**Knowledge** • Identify the maxillary and mandibular impression trays • Differentiate between the dentate and edentulous impression trays • Describe the selection criteria for an appropriate size of an impression tray *Describe the		LGIS	MCQs SAQs Viva

			difference between a stock tray and a custom tray • Name different dental materials used in the fabrication of a custom tray			
			Skill • Fabricate a custom tray using self-cure acrylic resin.		Practical Demonstration	OSPE
		• Extrapolate the concepts of impression registration to different edentulous situations.	**Knowledge** • Define a dental impression • Enumerate the objectives of impression-making • Classify the types of impressions based on their uses& impression theories • Discuss the different theories of complete denture impression making		LGIS SGD	MCQs SAQs Viva
			Skill • Record a mucostatic impression on a dental simulator.		Practical Demonstration	OSPE
4.	Cast & Models	• Appraise the importance of various dental casts used in denture fabrication.	**Knowledge** • Define a dental cast • Classify dental casts • Describe the different types of dental casts • Identify the different parts of a dental cast	**Dental Materials** • Describe materials for temporary record	LGIS	MCQs SAQs Viva

				bases, waxes, and gypsum		
5.	Denture Bases	• Outline the use of a record base in the fabrication of complete dentures.	**Knowledge** • Define dental record bases • Enumerate the requirements of record bases • Classify the types of record bases • Describe the various dental materials used to fabricate record bases		LGIS	MCQs SAQs Viva
			Skill • Perform wax-up for a record base • Fabricate a record base using acrylic resin • Perform the finishing and polishing procedures for the record base		Practical Demonstration	OSPE
6.	Occlusal rims	Fabricate a pair of occlusion rims on an edentulous cast	**Knowledge** • Define occlusal rims • Enumerate the uses of occlusal rims • Describe the dimensions of occlusal rims for both maxillary and mandibular base plates		LGIS SGD	MCQ SAQs VIVA
			Skill • Illustrate the various steps involved in the fabrication of occlusal rims		Practical Demonstration	OSPE

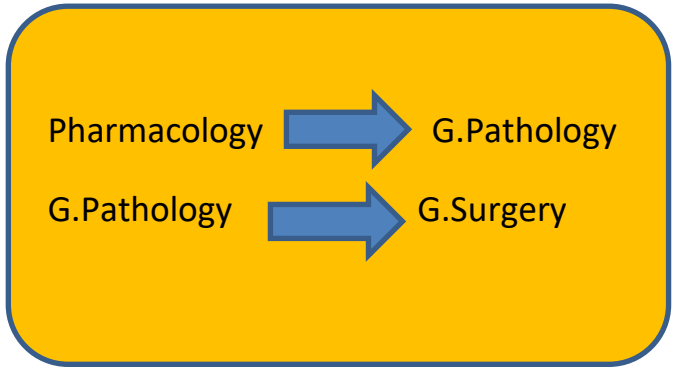
			• Fabricate occlusal rims of adequate dimensions for the maxilla and mandible using modelling wax			

Block 1 – 2nd Spiral

Module I: Foundation II

Theme: Basics of Medical Sciences II
Duration: 06 Week

Integration of Disciplines in This Module



Modular Learning Outcomes

By the end of the 1st module, the students of 2nd Year BDS should be able to:

1. Discuss the basic principles of inflammation and the basis of microbiology.
2. Describe the basic concepts of general pharmacology.

1.Pharmacology

S. No	Topic/ Theme	Learning Outcomes	Learning Objectives	Integrated LOs	MIT	Assessment Tools
1.	Pharmacology: Historical Overview	• Discuss the basics of pharmacology	**Knowledge** • Define Pharmacology and differentiate it from pharmacy • Identify the concept of Modern Pharmacology • Define drug • Trace the historical development of pharmacology • Analyse the contribution of Muslim scientists in the field of pharmacology • Outline the components of the rational drug therapy		LGIS SGDs	MCQs SAQs Structured Viva

2.	Pharmacology: Branches/ Division Of Pharmacology, Role In Medicine	• Discuss branches of pharmacology	**Knowledge** • Define: **Pharmacokinetics, *Pharmacodynamics, **Therapeutics, **Chemotherapy, **Toxicology, **Clinical pharmacology, **Pharmacy, **Pharmacognosy **Pharmacogenomics, **Pharmacoepidemiology, **Comparative pharmacology, **Animal pharmacology Pharmacoeconomics and Posology • Describe the clinical importance of branches of pharmacology		LGIS SGDs	MCQs SAQs Structured Viva
3.	Active Principles & Sources Of Drugs	• Discuss active principles and sources of drugs	**Knowledge** • Define active principles of drugs • Discuss characteristics of active principles with examples		LGIS, SGDs	MCQs SAQs Structured Viva

4.	Dosage Forms & Doses Of Drugs	• Describe doses and dosage forms	**Knowledge** • Define dosage forms • Describe various dosage forms with examples		LGIS, SGDs	MCQs SAQs Structured Viva
5.	Routes Of Drug Administration	• Discuss clinical applications of routes of administration	**Knowledge** • Classify routes of administration • Describe the advantages and disadvantages of different routes of drug administration • Identify different factors governing the choice of		LGIS, SGDs	MCQs SAQs Structured Viva
6.	Absorption Of Drug Process Factors Modifying Drug Absorption.	• Discuss the process of absorption of drugs Knowledge	**Knowledge** • Recall the structure of the cell membrane • Define absorption of the drug • Enumerate transport mechanisms involved in drug absorption. • Describe factors affecting the absorption of the drug.		LGIS, SGDs	MCQs SAQs Structured Viva

7.	Bioavailability: Clinical Significance And Factors Affecting	• Describe the clinical significance of the bioavailability of drugs	**Knowledge** • Define Bioavailability • Express bioavailability with the help of the formula • State the importance of bioavailability • Tabulate and briefly describe factors affecting bioavailability of drugs. • Differentiate between Bioequivalence, Therapeutic equivalence, Chemical equivalence		LGIS, SGDs	MCQs SAQs Structured Viva
8.	Distribution And Plasma Protein Binding Of Drugs	• Discuss the distribution of drugs.	**Knowledge** • Define the distribution of drug • Recall the distribution of total body water • Define the volume of distribution • Express the formula of volume of distribution • Discuss the clinical application of Vd in dosing regimens (calculation of loading dose) • Discuss factors affecting drug distribution • Identify plasma proteins with affinity for drugs • Describe the effect of		LGIS, SGDs	MCQs SAQs Structured Viva

9.	Biotransformation Of Drugs Factors Modifying Biotransformation	• Discuss biotransformation of drugs	**Knowledge** • Define biotransformation/ metabolism of a drug • Enlist the sites of metabolism of drugs • State the outcomes/objectives of biotransformation • Identify types of biochemical reactions responsible for drug metabolism • Explain the determinants of		LGIS, SGDs	MCQs SAQs Structured Viva
10.	Half-Life Of Drugs: Factors Affecting And Clinical Significance	• Discuss the clinical significance of plasma half-life	**Knowledge** • Define plasma half-life • Express half-life in the form of a formula • Identify pharmacokinetic parameters of drug predicted by half-life (time to reach steady state concentration, zero/first-order kinetics, time of elimination)		LGIS SGDs	MCQs SAQs Structured Viva

11.	Excretion Of Drugs & Drug Clearance	• Discuss excretion and clearance of drugs	**Knowledge** • Define excretion of drug • Classify major and minor routes of excretion • Enumerate processes involved in renal excretion • Express the role of enterohepatic circulation in the excretion of a drug • Define drug clearance • Outline the significance of clearance		LGIS, SGDs	MCQs SAQs Structured Viva
12.	Mechanism Of Drug Actions I & II	• Discuss the mechanism of drug action	**Knowledge** • Enumerate ways of cellular-drug interaction • Define receptor and its types and distribution • Define ligands • Describe types of drug-receptor interaction • Describe the concept of a second messenger		LGIS, SGDs	MCQs SAQs Structured Viva

13.	Factors Modifying Actions & Doses Of Drugs	• Describe actions and doses of drugs	**Knowledge** • Classify the determinants affecting the action of a drug • Enumerate factors affecting the pharmacokinetics of drugs (age, body size, genetic and environmental factors, diseases and co-morbid states, concomitantly administered drugs) • Tabulate factors responsible for pharmacodynamics variability (tolerance, synergism, antagonism etc)		LGIS, SGDs	MCQs SAQs Structured Viva
14.	Antiseptics And Disinfectants Used In Dentistry	• Discuss the role of different antiseptics and disinfectants in dentistry	**Knowledge** • Define antiseptics and disinfectants • Differentiate between antiseptics and disinfectants • Classify antiseptics and disinfectants • Outline the antimicrobial activity of different classes of antiseptics and disinfectants	**General Pathology**: • Explain the role of antiseptics & disinfectants	LGIS SGDs	MCQs SAQs Structured Viva

15.	Chemotherapy Introduction	• Discuss the basics of chemotherapy	**Knowledge** • Define chemotherapy • Differentiate between antibiotics and antimicrobials • Contrast bactericidal and bacteriostatic agents • Differentiate between narrow and broad-spectrum antimicrobial agents • Trace the basis of the classification of antimicrobial agents • Outline the principles of antimicrobial therapy		LGIS, SGDs	MCQs SAQs Structured Viva

2.GENERAL PATHOLOGY

S. No	Content/Topic	Learning Outcomes	Learning Objectives	Integrated Lo	MITs	Assessment Tool
1.	General Pathology & Microbiology Introduction	• Describe the causes, mechanisms, triggers, and patterns of injury to cell & tissue. • Correlate ischemic changes and its morphology.	**Knowledge** • Discuss the terminologies used in pathology and microbiology • Discuss the role of pathology in diagnostics • Enlist the components of the general pathology and microbiology		LGIS,SGDs	MCQs SAQ Structured Viva
			Skill • Identify bacteria by use of microscopes		Practical & Demonstration	OSPE
2.	Cell Injury: Etiology & Types Mechanism of Cell Injury Necrosis & Apoptosis	• Explain the mechanism involved in the process of cell injury. • Analyse the pathological basis of apoptosis and necrosis.	**Knowledge** • Define cell injury • Enlist different causes of cell injury • Describe the sequence of events in cell injury		LGIS,SGDs	MCQs SAQ Structured Viva

			• Differentiate between reversible & irreversible injury • Discuss general morphological features of necrosis • Enumerate the different types/ morphological patterns of necrosis with examples • Describe the mechanism of action & morphological features of each type of necrosis			
			Skill • Identify fatty changes and hydropic changes (Reversible cell injuries) by using histological slides		Practical & Demonstration	OSPE

3.	Cellular Adaptations & Intracellular Pigmentation, Amyloidosis	• Discuss the pathological &physiological adaptation mechanism and morphology with examples. • Relate different types of cellular accumulations within the pathological/ physiological basis of the disease	**Knowledge** • Enumerate different cellular adaptations • Discuss different types of cellular adaptations with example • Enumerate types of intracellular accumulation with the underlying mechanism of pathological factors, e.g., calcification		LGIS, SGDs	MCQs, SAQ Structured Viva
			Skill • Identify cases of Atrophy & Hyperplasia by using histological slides • Identify pigmented lesions e.g., Melanin and Calcification, using histological slides • Identify the gross and microscopic		Practical & Demonstration	OSPE

			features of amyloidosis.			
4.	General Bacteriology Bacterial Anatomy and Physiology Bacterial Growth Bacterial Genetics	• Describe bacterial cell structure and functions. • Discuss bacterial genetic system and process of bacterial growth and multiplication.	**<u>Knowledge</u>** • Describe the structure of bacteria • Differentiate between gram positive and gram-negative bacteria • Describe the function of bacterial spores • Define plasmids and their types • Define different types of mutations • Describe the different mechanisms of transfer of genetic material between bacterial cells		LGIS, SGDs	MCQs SAQs Structured Viva

			Skill • Explain the procedure of gram staining • Demonstrate performance of gram staining		Practical & Demonstration	OSPE
5.	Sterilization & Disinfection Physical And Chemical Methods of Sterilization and Disinfection	• Explain the procedure and methods of sterilization and disinfection. • Discuss the importance of sterilization.	**Knowledge** • Discuss the importance of normal flora • Describe the anatomic sites of medically important members of normal flora • Explain in detail three methods of sterilization • Classify disinfectants with their basic mechanism of action with a few examples • Describe the uses of autoclave		LGIS, SGDs	MCQs SAQs Structured Viva

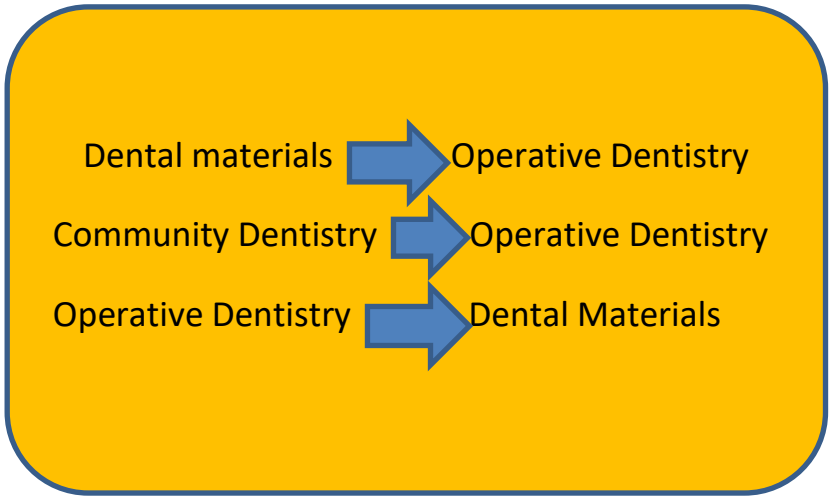
Block 1 – 1st Spiral

Module II: Dental Cariology

Theme: Essentials of Dentistry II

Duration: 06 Weeks

INTEGRATION OF DISCIPLINES IN THIS MODULE



1.DENTAL MATERIAL

S. No	Content/ Topic	Learning Outcomes	Learning Objectives	Integrated LOs	MITs	Assessment Tool
1.	Amalgam	• Outline compositional characteristics, properties and manipulative variables of dental amalgam.	**Knowledge** • Classify Dental Amalgam based on composition. • Describe the setting mechanism of different types of dental amalgams e.g. low copper Vs. high copper amalgam alloys. • Describe trituration and the effect of mercury alloy ratio on the properties of set materials. • Explain the hazards associated with mercury • Demonstrate the correct dispensing, trituration and	**Operative Dentistry** • Discuss the clinical considerations of amalgam, cavity prep for Class I Amalgam & mercury management	LGIS, SGDs	MCQs SAQ Structured Viva

			application of dental amalgam. • Demonstrate hand mixing and mechanical mixing of dental amalgam.			
			Skill • Identify dental amalgam kit and armamentarium • Perform hand-trituration of dental amalgam		Practical & Demonstration	OSPE
2.	Cements, Liners & Bases	• Relate the physico mechanical properties of dental cements to respective clinical applications.	**Knowledge** • Outline basic terminologies related to dental cements e.g. liners, bases. • Explain the setting mechanism of different dental cements. • Describe the clinical applications of different dental cements.	**Operative Dentistry** • Describe the application of liner and base materials	LGIS, SGDs	MCQs SAQ Structured Viva

			• Describe luting agents, types and their properties • Infer the use of temporary restorative materials, properties and their uses. • Interpret techniques for handling and manipulation of various dental cements. • Describe the Atraumatic Restorative Technique (ART) and Sandwich Technique. • Analyse modifications in Glass-ionomer cements. • Demonstrate the correct dispensing, manipulation and handling of Zinc phosphate			

			cement, Zinc oxide eugenol cement, Glass ionomer cement, and Calcium hydroxide cement			
			Skill • Demonstrate mixing of Zinc phosphate cement. • Demonstrate manipulation and placement of glass ionomer cement. • Perform manipulation and placement technique of calcium hydroxide liner. • Practice manipulation technique of zinc phosphate on slab/ paper pad.		Practical & Demonstration	OSPE

3.	Dentifrices & Fluoride Agents Pit & Fissure Sealants	• Appraise use of preventive materials in dentistry.	**Knowledge** • Describe the composition, properties and clinical application of pit and fissure sealants. • Outline the types, composition and purpose of dentifrices and mouthwashes. • Identify different types of fluoride agents, their mode of action and application.	**Community Dentistry** • Discuss the role of pit and fissure sealants in preventive dentistry.	LGIS, SGDs	MCQs, SAQ Structured Viva

2.COMMUNITY DENTISTRY

S. No	Content/ Topic	Learning Outcomes	Learning Objectives	Integrated LOs	MITs	Assessment Tools
1.	Epidemiology of Oral Diseases Introduction to Epidemiology	• Discuss the basic principles of Epidemiology	**Knowledge** • Define epidemiology • Explain the history of the epidemiology of oral diseases		LGIS, SGDs	MCQs SAQs Structured Viva
2.	Epidemiology of Dental Caries	• Discuss the basic principles and epidemiology of dental caries	**Knowledge** • Define dental caries • Describe the epidemiological triad of dental caries • Outline theories related to causation • Identify factors associated with dental caries • Explain the prevalence of caries in Pakistan & its associated factors *Discuss the mechanism of caries • Classify caries • Discuss the mechanism of caries • Explain the clinical manifestation of the caries process		LGIS, SGDs	MCQs, SAQs Structured Viva

			• Interpret the role of diet on caries and of sugar on caries • Describe the indicators for increased caries risk • Explain the categories for caries risk assessment • Discuss the concept of a Cariogram • Describe the advantages of the caries activity test • Explain the various caries activity tests.			
3.	Oral Indices Introduction to Oral Indices	• Apply the knowledge of Oral Indices	**<u>Knowledge</u>** • Define an index • Explain the ideal requirements of an index • Describe the uses of an index • Describe the classification of oral indices.		LGIS, SGDs	MCQ, SAQ, VIVA
4.	Indices for Dental Caries DMFT DMFS DEFT and DEFS	• Apply the knowledge and skills of Indices for Dental Caries.	**<u>Knowledge</u>** • Identify different indices used for diagnosis of dental caries • Define the DMFT and DFT Index • Explain the procedure to measure the score of the DMFT index • Discuss index teeth to be examined • Discuss the limitations of DMFT		LGIS, SGDs	MCQ, SAQ, VIVA

			• Discuss the criteria for DMFS • Explain the procedure to measure DEFT and DEFS			
			Skill • Illustrate the calculation of the DMFT score on models		Practical & demonstration	OSPE
5.	Prevention of Caries Levels of Prevention of Dental Caries	• Outline the concepts of levels of prevention at different levels	**Knowledge** • Define prevention • Identify levels of prevention • Discuss levels of prevention of Dental Caries	**Operatives**: Describe briefly: • Aetiology of **caries.** • Classification of **caries**. • The clinical manifestation of **caries**. **Oral Pathology** • Describe briefly the Zones of Caries in enamel	LGIS, SGD	MCQ, SAQ Viva

				and dentine. **Joint Session, V.I Operative & Dental Materials** • Discuss Pit & Fissure Sealants, ART		
6.	Plaque Control	• Analyse the different methods of plaque control & its application.	**Knowledge** • Define plaque-disclosing agents *Describe the purpose & Types of disclosing agents • Describe the methods of plaque disclosing agents' application • Identify Plaque control methods • Describe Mechanical and chemical plaque control		LGIS, SGD	MCQ, SAQs, Viva
			Skill • Demonstrate the tooth brushing techniques on models • Demonstrate the different techniques of flossing • Demonstrate the application of plaque disclosing agents.		Practical & demonstration	OSPE

7.	Pit & Fissure Sealants	• Apply the knowledge and skills related to pits and fissure sealants	**Knowledge** • Define pits and fissure sealants • Enlist the advantages of pits and fissure sealants • Describe Indications and contraindications of pits and fissure sealants		LGIS, SGDs	MCQs, SAQs
			Skill • Demonstrate the application of pit and fissure sealants		Practical Demonstration	OSPE
8.	Atraumatic Restorative Treatment	• Apply the knowledge and skills of ART	**Knowledge** • Define ART • Describe history &rationale of ART • Outline principles of using ART, indications, and contraindications • Enlist instruments, essential material &working requirements • Describe the survival/ success rate of restorations performed via ART		LGIS, SGDs	MCQs, SAQs
			Skill • Identify the instruments of ART • Perform the procedure of ART		Practical Demonstration	OSPE

9.	Caries Activity Test Caries Vaccine	• Correlate the concepts of caries activity test and its application in caries diagnosis	**Knowledge** *Describe caries activity test *Outline indications and advantages of caries test *Describe types of caries test & procedure to carry out test *Outline the importance of caries vaccine		LGIS, SGDs	MCQs, SAQs
10.	Fluorides in Dentistry	• Outline the role of fluorides in dentistry	**Knowledge** • Describe the metabolism of fluoride *Describe the mechanism of actions of fluoride *Describe modes of administration of fluorides *Differentiate the methods of systemic delivery with their advantages and disadvantages *Define topical fluorides *List indications for topical fluoride use *Describe different topical fluoride vehicles *Define de-fluoridation *Describe the different methods of de-fluoridation along with the advantages, and disadvantages of each method *Define the term fluoride toxicity *Describe the types of fluoride toxicity *Define the lethal dose of		LGIS, SGDs	MCQs, SAQs

			fluoride *Describe the management of fluoride toxicity *Describe Dean's Fluorosis Index *Explain the procedure to measure the score of the Dean Fluorosis Index			
			Skill *Demonstrate the method of application of topical fluorides		Practicals Demonstration	OSPE

Vertical Integrated Operative Dentistry

S. No	Content/ Topic	Learning Outcomes	Learning Objectives	Integrated LOs	MITs	Assessment Tool
.1	Introduction To Restorative Materials	• Differentiate between various restorative materials	**Knowledge** *Classify restorative materials *Describe composition, structure & properties of restorative materials *Discuss the clinical considerations of restorative materials *Enlist the indications and contraindications of amalgam restorative material *Enumerate the advantages and disadvantages of using amalgam restorative material.	• **Dental Materials**: • Describe amalgam and its setting reactions. • Discuss the sealant materials' composition. • Classify liners & base materials. **Community Dentistry** Describe the concept of sealants in the prevention of caries.	LGIS SGDs	MCQs SAQs

2.	Cavity Preparation For Class I Amalgam Restoration	• Outline the steps involved in a conservative class 1 amalgam restoration	**Knowledge** *Describe the initial clinical procedure for a Class I amalgam restoration *Explain the steps for tooth preparation for a conservative class I cavity utilizing principles of cavity preparations. *Explain the tooth preparation for an extensive class I cavity & class I occluso-lingual cavity		LGIS SGDs	MCQs SAQs
		•	**Skill** *Perform a class I cavity preparation for an amalgam restoration *Demonstrate the restorative technique for class I amalgam restoration *Perform mixing of amalgam *Perform condensation,		Practical/Demonstrations	OSPE

			burnishing, carving, finishing &polishing of an amalgam restoration			
3.	Pulp Protecting Agents	• Correlate the properties of cavity liners, bases and varnishes with their practical application	**<u>Knowledge</u>** *Differentiate between liners, bases and varnishes *Classify liners & bases with their composition and properties *Enlist indications and advantages of liners and bases *Highlight the importance of the clinical use of liners and bases in the restoration of different cavities.		LGIS SGDs	MCQs SAQs

			Skill *Demonstrate the method of application of liner and bases		Practical/ Demonstrations	OSPE
4.	Pits & Fissure Sealants (In integration with dental materials)	• Differentiate between various restorative materials	**Knowledge** *Discuss the clinical consideration of materials used as pits and fissure sealants *Enlist the indications and contraindications of pit &fissure sealants *Enumerate the advantages and disadvantages of pit & fissure sealants		LGIS SGDs	MCQs SAQs
			Skill *Demonstrate the application of pits and fissure sealants in posterior teeth in both maxillary and mandibular arches		Practicals Demonstrations	OSPE

4. Vertically Integrated Prosthodontics

S. No	Content/Topic	Learning Outcomes	Learning Objectives	Integrated Lo	MITs	Assessment Tool
1.	Articulators And Face bows	• Differentiate between various types of articulators used for prosthodontic work	**Knowledge** *Define an articulator *Differentiate between the various types of articulators *Discuss the concept and rationale of the use of articulators *Define face-bow *Enumerate the uses of a face-bow		LGIS SGDs	MCQs SAQs

			Skill *Articulate the fabricated rims in Class I relation on a semi-adjustable articulator		Demonstrations/ Practical	OSPE
2.	Artificial Teeth	• Appraise the differences in artificial devices used to replace the natural teeth	**Knowledge** *Describe the different types of artificial teeth based on the type of material and occlusal morphology *Describe the differences in occlusal morphology and their uses in different situations. *Describe the differences between acrylic and porcelain teeth and their uses.		LGIS SGDs	MCQs SAQs

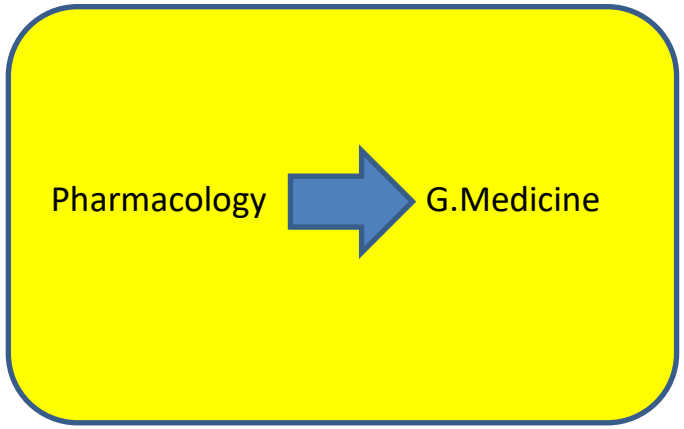
Block 1 – 2nd Spiral

Module II: Infectious Diseases

Theme: Basics of Medical Sciences II

Duration: 06 Weeks

INTEGRATION OF DISCIPLINES IN THIS MODULE



Modular Learning Outcomes

By the end of the 2nd module, the students of 2nd Year BDS should be able to:

1. Describe the etiology, morphology, pathogenesis, and inflammation with treatment modalities for various microbes according to the mode of action and drug interaction.

1. PHARMACOLOGY

S. No	Content/Topic	Learning Outcomes	Learning Objectives	Integrated Lo	MITs	Assessment Tool
1.	Chemotherapy Resistance	• *Discuss drug resistance and its outcomes	**Knowledge** • . *Define drug resistance *Enumerate types of resistance • *Describe different mechanisms underlying the development of drug resistance • *Identify the consequences of drug resistance • *Outline ways to prevent resistance		LGIS,SGDs	MCQs SAQ Structured Viva

2.	Penicillin I, II	• *Discuss the basic pharmacology of penicillin.	**Knowledge** **Recall the structure of the bacterial cell wall *Differentiate between the cell wall of gram-positive and gram-negative microorganisms *State the similarities and differences in the chemical structure between the penicillin and cephalosporin *Classify penicillin *Differentiate between the spectrum of activity between the: **natural penicillin **the penicillinase-resistant penicillin **the aminopenicillins **the carboxypenicillins **the ureidopenicillins **the β-lactamase inhibitor combinations		LGIS,SGDs	MCQs, SAQ Structured Viva

			*Describe the mechanism of action and resistance of penicillin *Explain the PK features of penicillin with emphasis on distribution to CSF, urinary tract, lungs, soft tissue and bone *Discuss the clinical uses and adverse effects of penicillin *Discuss hypersensitivity to penicillin *Discuss the prevention and management of penicillin hypersensitivity			
3.	Cephalosporin	• *Discuss the basic pharmacology of cephalosporins & their role in dentistry.	**Knowledge** . *Recall the similarities and differences in the chemical structure between the penicillin and cephalosporin *Classify	• .	LGIS,SGDs	MCQs, SAQ Structured Viva

			cephalosporin *Describe the mechanism of action and resistance of cephalosporin *Explain the PK characteristics of different generations of cephalosporin *Discuss the clinical uses and adverse effects of cephalosporin			
4.	Tetracycline	• *Discuss the basic pharmacology of tetracycline & their role in dentistry	**Knowledge** *Classify tetracycline *Discuss salient pharmacokinetic characteristics of different members of tetracycline *Describe the spectrum, mechanism of action and resistance of this drug group *Explain the clinical uses and adverse effects of tetracycline *Discuss the use of tetracycline in	•	LGIS,SGDs	MCQs, SAQ Structured Viva

			children and pregnant women			
5	Macrolides	• *Discuss the basic pharmacology of Macrolides	**Knowledge** *Enumerate macrolides *Discuss salient pharmacokinetic characteristics of different macrolides *Describe the spectrum, mechanism of action and resistance of macrolides *Enlist the clinical uses and adverse effects of macrolides *Compare and contrast between erythromycin, clarithromycin and azithromycin	•	LGIS,SGDs	MCQs, SAQ Structured Viva

6.	Chloramphenicol	• Discuss the basic pharmacology of chloramphenicol	**Knowledge** *State the spectrum of activity of chloramphenicol *Discuss the mechanism of action of chloramphenicol *Outline the clinical applications *Identify the main adverse effects of chloramphenicol	•	LGIS,SGDs	MCQs, SAQ Structured Viva
7.	Aminoglycosides	• *Discuss the basic pharmacology of aminoglycosides (AMGs)	**Knowledge** *Name different AMGs *Enumerate the structural differences between different members of AMGs *State the main PK characteristics of AMGs *Enumerate the advantages of multiple dosing of AMGs over once-daily dosing *Describe the mechanism of action and resistance of AMGs *Trace the spectrum of activity of AMGs *Cite the	•	LGIS,SGDs	MCQs, SAQ Structured Viva

			interaction between cell wall inhibitors and AMGs *Discuss the therapeutic indications and untoward effects of AMGs.			
8.	Quinolones	• *Discuss the basic pharmacology of quinolones	**Knowledge** *Classify quinolones *Differentiate between quinolones and fluoroquinolones *Describe the PK consideration of quinolones *Describe the mechanism of action, therapeutic uses and untoward effects of quinolones *Enumerate the contraindications of quinolones	•	LGIS,SGDs	MCQs, SAQ Structured Viva
9.	Anti-Mycobacterial I, II	• *Discuss first line and second line anti mycobacterial drugs	**Knowledge** *Enumerate different species of Mycobacterium and the diseases associated with them	• **General Medicine** • • . • • Discuss briefly the role of	LGIS,SGDs	MCQs, SAQ Structured Viva

			*List 1st and 2nd line ATT *Describe briefly the mechanism of action, resistance and clinical uses of 1st-line ATT *Identify the major toxicities of 1st line ATT and outline ways to minimize them *Describe the rationale for multi-drug regimens *Enlist antimycobacterial drugs used for leprosy	H.pylori in Acid-Peptic Disease		
10.	Expectorants & Antitussives	• *Discuss the basic pharmacology of drugs used in cough	**Knowledge** *Define cough *Classify the clinical presentations of cough *Outline the important components of the cough reflex *Define the terms antitussives, mucolytic and expectorants *Enumerate drugs used as antitussives,	•	LGIS,SGDs	MCQs, SAQs Structured Viva

			expectorants and mucolytic agents *Describe the mechanism of action of respective drug groups *Identify different respiratory conditions requiring the use of antitussives, mucolytic and expectorants *State adverse effects associated with these drugs			
11.	Anti-Asthmatic drugs I, II	• *Discuss the basic pharmacology of drugs used in asthma	K**nowledge** *Define asthma *Describe the types and pathological basis of asthma *Recall the distribution of autonomic receptors in the lungs and their role in the control of bronchial smooth muscle tone *Classify anti-asthma drugs into bronchodilators and	• **General Medicine** Classify Bronchial Asthma. •Diagnose Bronchial Asthma. •Describe the pathophysiology of Bronchial Asthma.	LGIS,SGDs	MCQs, SAQs Structured Viva

			anti inflammatory drugs *State drugs used for prophylaxis and treatment of asthma *Discuss the mechanism of action of different anti-asthma drugs *Describe the adverse effects and special considerations associated with these drugs *Outline appropriate drugs used in the management of acute severe asthma			
12.	Anti-Histamines	• *Discuss the basic pharmacology of anti-histamines	**Knowledge** *Recall the site of action and the physiological and pathophysiological role of histamine *Identify conditions causing the release of histamine *Describe the distribution of histamine receptors	•	LGIS,SGDs	MCQs, SAQs Structured Viva

			in the body and their associated actions *Classify antihistamine drugs *Describe the mechanism of action and pharmacological effects of antihistamines *Identify the various therapeutic uses of antihistamine therapy *Discuss the adverse effects of both generations of antihistamine			
13.	Non-Steroidal Anti Inflammatory Drugs (NSAIDs) I, II	• *Discuss the basic pharmacology of analgesics	**Knowledge** *Define pain *Discuss the role of cyclo oxygenase and prostaglandins in the pathology of pain, inflammation and fever *Identify the role of prostaglandins in the homeostatic regulation of: a) gastric function b) kidney function c) regulation of	•	LGIS,SGDs	MCQs, SAQs Structured Viva

			vasomotor tone and platelet functions *Define the term NSAIDs *Classify NSAIDs *Describe the general mechanism of action of NSAID and differentiating points of aspirin and paracetamol *Discuss the pharmacokinetics, therapeutic uses and adverse effects of aspirin and paracetamol *Describe the indications preferring use of COX-2 inhibitors.			

2. GENERAL PATHOLOGY

S. No	Content/Topic	Learning Outcomes	Learning Objectives	Integrated Lo	MITs	Assessment Tool
1.	Inflammation Introduction &Types Acute inflammation (Vascular & Cellular Events) Chronic Inflammation Chemical Mediators of Inflammation	• *Explain inflammation, the steps and cells involved in acute &chronic inflammation *Discuss the systemic effects of inflammation on the human body *Describe the pathogenesis of inflammation	**Knowledge** • Enlist cardinal signs of inflammation & its causes • *Compare various types of Inflammation *Differentiate between Transudate and exudate • *Enlist morphological		LGIS,SGDs	MCQs SAQs Structured Viva

			patterns of acute &chronic inflammation • *Enlist the events involved in pathogenesis & cellular events *Describe processes of margination, rolling, adhesion, transmigration, chemotaxis &phagocytosis			
		• .	**Skill** *Identify inflammatory cells by using slides		Practical/ Demonstration	OSPE
2.	Healing and Repair	• *Explain the process of wound healing and repair in the human body *Describe the factors affecting wound healing	**<u>Knowledge</u>** *Describe different types of tissue cells concerning proliferative activity *Describe steps involved in tissue healing *Define angiogenesis and the steps involved in it	• . **General Surgery** • Discuss the basic principles of Tissue Repair	LGIS,SGDs	MCQs, SAQs, Structured Viva

			*Differentiate between primary and secondary intention healing			
3.	Special Bacteriology Gram +ive Cocci	• *Classify gram positive and gram positive bacilli • *Interpret the	**Knowledge** *Recall basic concepts of special bacteriology *Classify gram-positive and gram-positive bacilli	•	LGIS,SGDs	MCQs, SAQs Structured Viva
	Gram +ive Rods Mycobacterium tuberculosis	• *diseases produced by the cocci • *Describe the characteristics of gram-positive rods along with their pathogenesis and lab diagnosis *Discuss the types of mycobacteria *Describe the differences between typical and atypical mycobacteria	**Knowledge** **Tabulate the tests that differentiate different species of Staphylococci *Discuss the diseases, pathogenesis, virulence factors and clinical features of diseases caused by MRSA. *Enlist the diseases they produce *Explain the role of different virulence factors possessed by them	•	LGIS,SGDs	MCQs, SAQs Structured Viva

			*Explain the pathogenesis of the diseases produced *Enlist the clinical features *Discuss the pathogenesis of pulmonary TB in detail *Differentiate the primary and secondary TB *Differentiate between latent TB and secondary TB			
.		•	**Skill** *Discuss the principle, performance, result &interpretation of the oxidase test *Discuss the principle, performance, result & interpretation of the Catalase test *Perform sugar test & motility test *Interpret TSI	•	Practical Demonstration	OSPE

BEHAVIOURAL SCIENCE MODULE I &II BLOCK 1

S. No.	Topics/Theme	Learning Outcomes	Learning Objectives	Integrated LOs	MIT	Assessment Tools
		By the end of this block, students of 2nd year will be able to:				

1.	1. Introduction to Behavioral Sciences and Its Importance in Health	• Discuss significance of behavioural Sciences in clinical practice • Differentiate Holistic Vs. Traditional Allopathic Medicine • Discuss Culture & Dental Practice • Discuss Health Care Models and their Clinical Applications 1. Bio-Psychosocial Model of health and disease 2. The Integrated Model of Health Care: Correlation of Body, Brain, Mind, Spirit and Behavioural Sciences	**Knowledge** • Define behavioural sciences and its key concepts. • Explain the significance of behavioural sciences in promoting overall health and well-being. **Skills** • Apply behavioural science concepts to patient interactions and clinical practice.		LGIS	MCQs, SAQs

		3. The Public Health Care Model				
2.	1. Understanding Behaviour	• Understand human behaviour through Principles of Psychology	**<u>Knowledge</u>** • Explain the basic principles of human behaviour and their biological, psychological, and social determinants. **<u>Skills</u>** • Observe and assess patient behaviour in a clinical setting.		LGIS	MCQs, SAQs

3.	1. Individual differences	• Understand individual human differences • Describe Neurobiological and Psychological Basis of Behaviour	**Knowledge** • Describe the concept of individual differences and their impact on personality and health. • Explain factors influencing individual behaviour, such as genetics, environment, and experiences. **Skills** • Recognize and adapt to diverse patient personalities and needs in clinical settings.		LGIS	MCQs, SAQs
4.	1. Physician Self-Regulation and Maintenance of Competence	• Discuss the processes of physician self-regulation and maintenance of competence.	• Discuss autonomous growth. • Describe the process for maintenance and continuous improvement of competence.		LGIS	MCQs, SAQs
5.	1. Professional Identity Formation	• Reflections on White Coat Ceremony	**Knowledge:** • Define Professional identity formation.		SGD, Reflective writing	Reflective writing

		• List types of identities and its Components. • Define ways to transform professional identity	• List types of Professional identities and their components. • Define ways to transform professional identity. **Attitude:** • Understand the significance of the white coat ceremony (Reflection).			

1. TENTATIVE TEST SCHEDULE[1]

DATE	SUBJECT	DAY
17-3-2025	Community Dentistry	Monday
20-3-2025	Dental Materials	Thursday
24-3-2025	Pharmacology	Monday
27-3-2025	General Pathology	Thursday
7-4-2025	Preclinical Operative Dentistry & Prosthodontics	Monday
10-4-2025	Community Dentistry	Thursday
21-4-2025	Dental Materials	Monday
24-4-2025	Pharmacology	Thursday
28-1-2025	General Pathology	Monday
5-5-2025	Preclinical Operative Dentistry & Prosthodontics	Monday
8-5-2025	Community Dentistry	Thursday
12-5-2025	Dental Materials	Monday

[1] This is a tentative schedule. Therefore, it is subject to change.

15-5-2025	Pharmacology	Thursday
19-5-2025	General Pathology	Monday
22-5-2025	Preclinical Operative Dentistry & Prosthodontics	Thursday
26-5-2025	Community Dentistry	Monday
29-5-2025	Dental Materials	Thursday

2.End of Block (EoB) Exam Tentative Schedule

Dates	Subject	Timings
2-6-2025	Pharmacology/Pathology	Starting at 8:30
6-6-2025	Community Dentistry/Dental Material/ Preclinical Operatives & Prosthodontics	Starting at 8:30

Block I Module I & II Syllabi

1. DENTAL MATERIALS

Week – 01			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	3-3-2025	Introduction to Dental materials	LGIS
2	4-3-2025	Mechanical Properties	LGIS
3	6-3-2025	Mechanical Properties	LGIS
Practical			
1	3-3-2025	Wire Bending	SGD/ Practical
	4-3-2025	Wire Bending	SGD / Practical
Tutorial			
1	6-3-2025	Introduction to Properties of Materials	SGD / DEMONSTRATION
Week – 02			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	10-3-2025	Mechanical Properties	LGIS
2	11-3-2025	Thermal and Chemical properties of material	LGIS
3	13-3-2025	Properties	LGIS
Practical			
1	10-3-2025	Wire Bending	SGD/Practical
	11-3-2025	Wire Bending	SGD/Practical
		Tutorial	
1	13-3-2025	Properties of material	SGD
Week – 03			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	17-3-2025	Miscellaneous Properties	LGIS
2	18-3-2025	Rheological Properties	LGIS
3	20-3-2025	Rheological Properties	LGIS
Practical			
1	17-3-2025	Plaster Slab	SGD/Practical
	18-3-2025	Plaster Slab	SGD/Practical
Tutorial			

1	20-3-2025	Properties of Material	SGD
Week – 04			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	24-3-2025	Rheological properties	LGIS
2	25-3-2025	Gypsum	LGIS
3	27-3-2025	Gypsum	LGIS
Practical			
1	24-3-2025	Plaster Slab	SGD/ Practical
	25-3-2025	Plaster Slab	SGD/Practical
Tutorial			
1	27-3-2025	Gypsum / test properties	SGD
Week 05			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	7-4-2025	Dental Waxes	LGIS
2.	8-4-2025	Dental Waxes	LGIS
3	10-4-2025	Dental amalgam	LGIS
Practical			
	7-4-2025	Plaster Slab	SGD/Practical
	8-4-2025	Plaster Slab	SGD/Practical
Tutorial			
1	10-4-2025	Properties/gypsum/waxes	SGD
Week – 06			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	21-4-2025	Dental Amalgam	LGIS
2	22-4-2025	Dental Amalgam	LGIS
3	24-4-2025	GIC	LGIS
Practical			
1	21-4-2025	Manipulation of amalgam	SGD/Practical
2	22-4-2025	Manipulation of amalgam	SGD/Practical
Tutorial			
1	24-4-2025	Dental Amalgam	SGD
Week – 07			

S. No	Date	Topic/ Theme	MIT
1	28-4-2025	GIC	LGIS
2	29-4-2025	GIC	LGIS
3	01-5-2025	Labour Day	LGIS
Practical			
	28-4-2025	Manipulation of GIC	SGD/Practical
	29-4-2025	Manipulation of GIC	SGD/Practical
Tutorial			
	30-4-2025	Dental Cements	SGD
Week – 08			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	5-5-2025	Dental Cements	LGIS
2	6-5-2025	Dental Cements	LGIS
3	8-5-2025	Dental Cements	LGIS
Practical			
	5-5-2025	Manipulation of GIC	SGD/Practical
	6-5-2025	Manipulation of GIC	SGD/Practical
Week – 09			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	12-5-2025	Dental Cements	LGIS
2	13-5-2025	Dental Cements	LGIS
3	15-5-2025	Dental Cements	LGIS
Practical			
1	12-5-2025	Manipulation of cements	SGD/Practical
	13-5-2025	Manipulation of cements	SGD/ Practical
Tutorial			
1	15-5-2025	Dental Cements	SGD
Week – 10			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	19-5-2025	cements	LGIS
2	20-5-2025	cements	LGIS

	22-5-2025	cements	LGIS
Practical			
1	19-5-2025	Manipulation of cements	SGD/Practical
	20-5-2025	Manipulation of cements	SGD/ Practical
	Tutorial		
	22-5-2025	cements	SGD
Week – 11			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	26-5-2025	revision	LGIS
2	27-5-2025	revision	LGIS
	29-5-2025	revision	LGIS
Practical			
1	26-5-2025	revision	SGD/Practical
	27-5-2025	revision	SGD/ Practical
	Tutorial		
	29-5-2025	revision	SGD

2.COMMUNITY DENTISTRY

Week – 01			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	3-3-2025	Introduction to Public & Dental Public health	LGIS
2	4-3-2025	Basic concepts of Epidemiology	LGIS
3	5-3-2025	Introduction To epidemiology of Dental caries	LGIS
Practical			

1	3-3-2025	Ergonomics Basics	SGD / DEMONSTRATION
	4-3-2025	Ergonomics Basics	SGD / DEMONSTRATION
Tutorial			
1	5-3-2025	Dental Public Health	LGIS
Week – 02			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	10-3-2025	Epidemiological triad of dental caries	LGIS
2	11-3-2025	Etiology of dental caries	LGIS
3	12-3-2025	Diet and dental caries	LGIS
Practical			
1	10-3-2025	Ergonomics	SGD / DEMONSTRATION
	11-3-2025	Ergonomics	SGD / DEMONSTRATION
Tutorial			
1	12-3-2025	Epidemiology of dental caries	LGIS
Week – 03			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	17-3-2025	Caries risk assessment	LGIS

2	18-3-2025	Cariogram	LGIS
3	19-3-2025	Caries activity test	LGIS
Practical			
1	17-3-2025	History taking	SGD / DEMONSTRATION
	18-3-2025	History taking	SGD / DEMONSTRATION
Tutorial			
1	19-3-2025	Epidemiology of dental caries	LGIS
Week – 04			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	24-3-2025	Introduction To Oral Indices	LGIS
2	25-3-2025	Introduction To Oral Indices	LGIS
3	26-3-2025	Levels Of Prevention	LGIS
Practical			
1	24-3-2025	History taking	SGD / DEMONSTRATION
	25-3-2025	History taking	SGD / DEMONSTRATION
Tutorial			
1	26-3-2025	Indices For Dental Caries	LGIS

Week 05			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	7-4-2025	Prevention Of Dental Caries	LGIS
	8-4-2025	Plaque Control Methods	LGIS
2	9-4-2025	Mechanical plaque control	LGIS
Practical			
1	7-4-2025	Examination	SGD / DEMONSTRATION
	8-4-2025	Examination	SGD / DEMONSTRATION
Tutorial			
1	9-4-2025	Plaque control	LGIS
Week – 06			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	21-4-2025	Chemical plaque control	LGIS
2	22-4-2025	ART	LGIS
3	23-4-2025	Pit and fissure sealants Integrated with Operative Dentistry	LGIS
Practical			
1	21-4-2025	Intraoral Examination	SGD / DEMONSTRATION

	22-4-2025	Intraoral Examination	SGD / DEMONSTRATION
Tutorial			
1	23-4-2025	Prevention of dental caries	LGIS
Week – 07			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	28-4-25	Role of fluorides in dental caries	LGIS
2	29-4-25	Metabolism of fluorides	LGIS
3	30-4-25	MOA of fluorides	LGIS
Practical			
1	28-4-25	Extraoral examination	SGD / DEMONSTRATION
	29-4-25	Extraoral examination	SGD / DEMONSTRATION
Tutorial			
1	30-4-25	Fluorides in dental caries	LGIS
Week 08			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	5-5-2025	Modes of fluorides administration	LGIS
2	6-5-2025	Systemic fluoride application	LGIS

3	7-5-2025	Systemic fluoride application	LGIS
Practical			
1	5-5-2025	Plaque index	SGD / DEMONSTRATION
	6-5-2025	Plaque index	SGD / DEMONSTRATION
Tutorial			
1	7-5-2025	Fluorides in dental caries	LGIS
Week – 09			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	12-5-2025	Topical fluoride application	LGIS
2	13-5-2025	Fluoride toxicity	LGIS
3	14-5-2025	Defluoridation	LGIS
Practical			
1	12-5-2025	CPITN	SGD / DEMONSTRATION
	13-5-2025	CPITN	SGD / DEMONSTRATION
Tutorial			
1	14-5-2025	Fluorides	LGIS
Week – 10			

S. No	Date	Topic/ Theme	MIT
1	19-5-2025	Research project	LGIS
2	20-5-2025	Research project	LGIS
3	21-5-2025	Research project	LGIS
Practical			
1	19-5-2025	DMFT	SGD / DEMONSTRATION
	20-5-2025	DMFT	SGD / DEMONSTRATION
Tutorial			
1	21-5-2025	Research project	LGIS

Week – 11			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	26-5-2026	Revision	LGIS
2	27-5-2026	Revision	LGIS
3	28-5-2026	Revision	LGIS
Practical			
1	26-5-2026	Dean's Fluorosis index	SGD / DEMONSTRATION

	27-5-2026	Dean’s Fluorosis index	SGD / DEMONSTRATION
Tutorial			
1	29-5-2026	Revision	LGIS

2. PHARMACOLOGY

Week – 01			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	3-3-2025	Introduction to Pharmacology	LGIS
2	5-3-2025	Branches & Subdivisions of Pharmacology	LGIS
3	6-3-2025	Absorption of Drugs	LGIS
Practical			
1	6-3-2025	Introduction to Pharma lab	SGD / DEMONSTRATION
	7-3-2025	Introduction to Pharma lab	SGD / DEMONSTRATION
Tutorial			
1	3-3-2025	Active Principles & sources of drugs	SGD / DEMONSTRATION
Week – 02			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	10-3-2025	Bioavailability of drugs	LGIS
2	12-3-2025	Distribution & volume of distribution	
3	13-3-2025	biotransformation of drugs I	
Practical			
	13-3-2025	Prescription writing	SGD / DEMONSTRATION
	14-3-2025	Prescription writing	
Tutorial			
	10-3-2025	**PPT 1**	
Week – 03			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	17-3-2025	Biotransformation of drugs II	LGIS
2	19-3-2025	Plasma half life of drugs	LGIS
3	20-3-2025	Excretion & clearance of drugs	LGIS
Practical			
1	20-3-2025	Calculations	SGD / DEMONSTRATION
	21-3-2025	Calculations	SGD / DEMONSTRATION
Tutorial			
1	**17-3-2025**	**PTT 2**	SGD / DEMONSTRATION

Week – 04			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	24-3-2025	Mechanism Of Drug Action I	LGIS
2	26-3-2025	Mechanism Of Drug Action II	LGIS
3	27-3-2025	Integration session Pharmacology & General Pathology	LGIS
Practical			
1	27-3-2025	Prescription writing	SGD / DEMONSTRATION
	28-3-2025	Prescription writing	SGD / DEMONSTRATION
Tutorial			
1	**24-3-2025**	**PTT-3**	SGD / DEMONSTRATION
Week 05			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	7-4-2025	Factors Modifying Action & Doses Of Drugs I	LGIS
	9-4-2025	Factors modifying action & doses of drugs ii	LGIS
2	10-4-2025	Toxicity of drugs	LGIS
Practical			
1	10-4-2025	Calculations	SGD / DEMONSTRATION
	11-4-2025	Calculations	SGD / DEMONSTRATION
Tutorial			
1	7-4-2025	PPT	SGD / DEMONSTRATION
Week – 06			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	21-4-2025	intro to chemotherapy	LGIS
2	23-4-2025	cell wall synthesis inhibitors I	LGIS
3	24-4-2025	cell wall synthesis inhibitors II	LGIS
Practical			
1	24-4-2025	Calculations	SGD / DEMONSTRATION
	25-4-2025	Calculations	SGD / DEMONSTRATION
Tutorial			
1	21-4-2025	PPT	SGD / DEMONSTRATION
Week – 07			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	28-4-2025	aminoglycosides	LGIS

2	30-4-2025	macrolides	LGIS
3	1-5-2025	Labour Day	LGIS
Practical			
1	1-5-2025	Labour Day	SGD / DEMONSTRATION
	2-5-2025	Calculations	SGD / DEMONSTRATION
Tutorial			
1	28-4-2025	tetraxcycline& chloramphenicol	LGIS
Week – 08			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	5-5-2025	DNA gyrase inhibitors	LGIS
2	7-5-2025	bronchial asthma	LGIS
3	8-5-2025	bronchial asthma	LGIS
Practical			
1	8-5-2025	Calculation	SGD / DEMONSTRATION
	9-5-2025	Calculation	SGD / DEMONSTRATION
Tutorial			
1	5-5-2025	PTT 5	SGD / DEMONSTRATION
Week – 09			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	12-5-2025	pharma & medicine tuberculosis	LGIS
2	14-5-2025	drugs used in tuberculosis II	LGIS
3	15-5-2025	drugs used in asthma I	LGIS
Practical			
1	15-5-2025	Pharmacy preparations	SGD / DEMONSTRATION
	16-5-2025	Pharmacy preparations	SGD / DEMONSTRATION
Tutorial			
1	12-5-2025	PTT 6	SGD / DEMONSTRATION
Week – 10			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	19-5-2025	drugs used in asthma II	LGIS
2	21-5-2025	NSAIDS I	LGIS
3	22-5-2025	NSAIDS II	LGIS

Practical			
1	22-5-2025	Pharmaceutical preparations	SGD / DEMONSTRATION
	23-5-2025	Pharmaceutical preparations	SGD / DEMONSTRATION
Tutorial			
1	19-5-2025	mucolytics/ anti-tussives	LGIS
Week – 11			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	26-5-2025	Revision	LGIS
2	28-5-2025	Revision	LGIS
3	29-5-2025	Revision	LGIS

Practical			
1	29-5-2025	Pharmacological preparations	SGD / DEMONSTRATION
	30-5-2025	Pharmacological preparations	SGD / DEMONSTRATION
Tutorial			
1	26-5-2025	Revision	LGIS

3. GENERAL PATHOLOGY

Week – 01			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	4-3-2025	Introduction & etiology of cell injury	LGIS
2	5-3-2025	Types of Cell Injury	LGIS
3	6-3-2025	Mechanisms Of Free Radicals	LGIS
Practical			
1	6-3-2025	Introduction to Microscope	SGD / DEMONSTRATION
	7-3-2025	Introduction to Microscope	SGD / DEMONSTRATION
Tutorial			
1	4-3-2025	Cell injury	
Week – 02			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	11-3-2025	Necrosis	LGIS

2	12-3-2025	Apoptosis	LGIS
3	13-3-2025	Intracellular accumulation	LGIS
Practical			
1	13-3-2025	Hydropic & Fatty Changes	SGD / DEMONSTRATION
	14-3-2025	Hydropic & Fatty Changes	SGD / DEMONSTRATION
Tutorial			
1	11-3-2025	Mechanism of cell injury	SGD / DEMONSTRATION
Week – 03			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	18-3-2025	Adaptation to cell injury 1	LGIS
2	19-3-2025	Adaptation to cell injury 2	LGIS
3	20-3-2025	Cellular adaptation	LGIS
Practical			
1	20-3-2025	Gram staining	SGD / DEMONSTRATION
	20-3-2025	Gram staining	SGD / DEMONSTRATION
Tutorial			
1	18-3-2025	Intracellular acccumulation	SGD / DEMONSTRATION
Week – 04			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	25-3-2025	Bacterial Growth	LGIS
2	26-3-2025	Normal Flora	LGIS
3	27-3-2025	Bacterial Genetics	LGIS
Practical			
1	27-3-2025	Zn Staining	SGD / DEMONSTRATION
	28-3-2025	Zn Staining	SGD / DEMONSTRATION
Tutorial			
1	25-3-2025	Pigmentation	SGD / DEMONSTRATION
Week 05			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	8-4-2025	Meeting Of Houses For Sports Week Prepration	LGIS
2	9-4-2025	Disinfectant	LGIS
3	10-4-2025	Acute inflammation	LGIS

Practical			
1	10-4-2025	Culture Media	SGD / DEMONSTRATION
	11-4-2025	Culture Media	SGD / DEMONSTRATION
Tutorial			
1	8-4-2025	Normal Flora	SGD / DEMONSTRATION
Week – 06			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	22-4-2025	Chronic Inflammation	LGIS
2	23-4-2025	Mediators of Inflammation	LGIS
3	24-4-2025	General Pathology & General Surgery integration Healing & Repair	LGIS
Practical			
1	24-4-2025	Necrosis	SGD / DEMONSTRATION
	25-4-2025	Necrosis	SGD / DEMONSTRATION
Tutorial			
1	22-4-2025	Sterlization	SGD / DEMONSTRATION
Week – 07			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	29-4-2025	Gram positive cocci: Staphylococcus	LGIS
2	30-4-2025	Streptococcus	LGIS
3	1-5-2025	Labour Day	LGIS
Practical			
1	1-5-2025	Labour Day	SGD / DEMONSTRATION
	2-5-2025	Hyperplasia & Atrophy	SGD / DEMONSTRATION
Tutorial			
1	29-4-2025	Inflammation	LGIS
Week 8			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	6-5-2025	Gram positive bacilli	LGIS
2	7-5-2025	Spore forming bacilli	LGIS
3	8-5-2025	Non spore forming bacilli	LGIS
Practical			
1			SGD / DEMONSTRATION

			SGD / DEMONSTRATION
Tutorial			
1	6-5-2025	Gram positive cocci	LGIS
Week – 09			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	13-5-2025	Tuberculosis I/General Medicine	LGIS
2	14-5-2025	Tuberculosis II/ General medicine	LGIS
3	16-5-2025		LGIS
Practical			
1			SGD / DEMONSTRATION
			SGD / DEMONSTRATION
Tutorial			
1	13-5-2025	Gram positive bacilli	LGIS
Week – 10			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	20-5-2025	Revision	LGIS
2	21-5-2025	Revision	LGIS
3	22-5-2025	Revision	LGIS
Practical			
1	22-5-2025	Tissue Repair & Regeneration	SGD / DEMONSTRATION
	23-5-2025	Tissue Repair & Regeneration	SGD / DEMONSTRATION
Tutorial			
1	20-5-2025	Revision	SGD / DEMONSTRATION

Week – 11			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	27-5-2025	Revision	LGIS
2	28-5-2025	Revision	LGIS
3	29-5-2025	Revision	LGIS
Practical			
1	29-5-2025	Acute inflammation	SGD / DEMONSTRATION
	30-5-2025	Acute inflammation	SGD / DEMONSTRATION

Tutorial			
1	27-5-2025	Revision	SGD / DEMONSTRATION

4. PRECLINICAL OPERATIVE DENTISTRY

Week – 01			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	7-3-2025	Introduction to Preclinical Operatives	LGIS
Practical			
1	5-3-2025	Orientation to operative lab	SGD/ Practical
	7-3-2025	Orientation to operative lab	SGD/Practical
Week – 02			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	14-3-2025	Cariology	LGIS
Practical			
1	12-3-2025	Rubber dam	SGD/Practical
	14-3-2025	Rubber dam	SGD/Practical
Week – 03			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	21-3-2025	Cariology Integrated session jr. operative & oral pathology	LGIS
Practical			
1	19-3-2025	Rubber dam application	SGD/Practical
	21-3-2025	Rubber dam application	SGD/Practical
Week – 04			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	28-3-2025	Cariology	LGIS
Practical			
1	26-3-2025	Class 1 cavity	SGD/ Practical
	28-3-2025	Class 1 cavity	SGD/Practical
		Week -05	

S. No	Date	Topic/ Theme	MIT
1	11-4-2025	Cariology	LGIS
Practical			
1	9-4-2025	Class 1 cavity	SGD/ Practical
	11-4-2025	Class 1 cavity	SGD/Practical
Week – 6			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	25-4-2025	Cariology	LGIS
Practical			
	23-4-2025	Class 1 cavity	SGD/ Practical
	25-4-2025	Class 1 cavity	SGD/ Practical
Week – 07			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	2-5-2025		LGIS
Practical			
	28-4-2025	Class 1 cavity	SGD/Practical
	2-5-2025	Class 1 cavity	SGD/Practical
Week 08			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	9-5-2025		LGIS
Practical			
1	7-5-2025	Class 1 cavity	SGD/Practical
	9-5-2025	Class 1 cavity	SGD/Practical
Week – 09			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	16-5-2025		LGIS
Practical			
1	14-5-2025	Class 1 Tooth preparation	SGD/Practical
	16-5-2025	Class 1 Tooth preparation	SGD/Practical
Week – 10			
S. No	**Date**	**Topic/ Theme**	**MIT**

1	23-5-2025		LGIS
Practical			
1	21-5-2025	Completion of quota	SGD/Practical
	23-5-2025	Completion of quota	SGD/Practical
Week – 11			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	30-5-2025		LGIS
Practical			
1	28-5-2025	Completion of quota	SGD/Practical
	30-5-2025	Completion of quota	SGD/Practical

5. PRECLINICAL PROSTHODONTICS

S. No	Date	Topic/ Theme	MIT
1	7-3-2025	Introduction to Preclinical Prosthodontics	
Practical			
	5-3-2025	orientation to prosthodontic lab	
	7-3-2025	orientation to prosthodontic lab	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	14-3-2025	Anatomical landmarks of maxilla	
Practical			
	12-3-2025	identification of mandibular landmarks on casts	
	14-3-2025	identification of mandibular landmarks on casts	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	21-3-2025	Anatomical landmarks of mandible	
Practical			
	19-3-2025	Record base fabrication	
	21-3-2025	Record base fabrication	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	28-3-2025	Impressions and impression making	
Practical			
	26-3-2025	Fabrication of record base (Mandibular)	
	28-3-2025	Fabrication of record base (Mandibular)	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	11-4-2025	Dental casts	
Practical			
	09-4-2025	Fabrication of Occlusal Rims	

	11-4-2025	Fabrication of Occlusal Rims	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	25-4-2025	Record Bases	
Practical			
	23-4-2025	mounting of casts on articulators	
	25-4-2025	mounting of casts on articulators	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	2-5-2025	Occlusal rims	
Practical			
	30-4-2025	anterior teeth arrangement	
	2-5-2025	anterior teeth arrangement	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	9-5-2025	articulators and facebow	
Practical			
	7-5-2025	Teeth arrangement	
	9-5-2025	Teeth arrangement	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	16-5-2025	selection of artificial teeth	
Practical			
	14-5-2025	Mounting on cast	
	16-5-2025	Mounting on cast	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	23-5-2025	class test	
Practical			
	21-5-2025	Mounting of cast on articulators	
	23-5-2025	Mounting of cast on articulators	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	30-5-2025	revision	
Practical			
1	28-5-2025	Completion of quota	
	30-5-2025	Completion of quota	

7-BEHAVIORAL SCIENCES

Week – 01			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	7-3-2025	Introduction to Behavioral Sciences	LGIS
Week – 02:			
1	14-3-2025	Culture and Dental Practice	
Week – 03			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	21-3-2025	Healthcare Models	LGIS
Week – 04			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	28-3-2025	Individual Differences(Intelligence)	LGIS
Week – 05			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	11-4-2025	Meeting Of Houses For Sports Week Prepration	LGIS
Week – 06			
S. No	**Date**	**Topic/ Theme**	**MIT**
1	25-4-2025	Professionalism: Professional Identity Formation	LGIS
Week – 07			
S. No	**Date**	**Topic/ Theme**	**MIT**

1	2-5-2025	Neurological Basis of Behavior (Emotions)	LGIS
		Week – 08	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	9-5-2025	Neurological Basis of Behavior(Motivation)	LGIS
		Week – 09	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	16-5-2025	Individual Differences (Personality Development)	LGIS
		Week – 10	
S. No	**Date**	**Topic/ Theme**	**MIT**
1	23-5-2025	Principles of Psychology (sensation)	LGIS
		Week – 11	
1	30-5-2025	Principles of Psychology (Perception)	LGIS

LEARNING RESOURCES

1.DENTAL MATERIALS

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Books

Restorative Materials by Robert, Craig.

Phillips Skinner's Science of Dental Materials.

Clinical Handing of Dental Materials by B.N Smith.

Dental Chemistry by Cunningham.

Must have Books

M.Cabe Dental Materials

Preclinical Dental Sciences Work Book For Dental Students

Restorative Materials by Robert, Craig

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Pliers

Round, Straight and Adams. Wire cutter

Plaster and alginate mixing spatula,

Dycal applicator

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Instruments

Glass slab

Cement Spatula

Plastic instrument

Articulator (Hinge and Hanau)

Modeling Wax 1 box

Gloves

Mask

Set of measuring Scoop

Dropper

Scale, Marker, Pencil

Mortar Pestle

Alginate mixing spatula

Rubber Bowl

Condenser

Burnishers

Carver

Amalgam Carrier

Matrix Band

Matrix band retainer

Articulating paper

Impression Trays partial denture set

Measuring cylinder 100mlX2

Measuring Beaker 100ml

Plastic sheet

1 Pack Alginate

Gypsum/plaster of Paris 4kg

Base former of model Upper and Lower arch

flask

2.Community Dentistry

Books

Textbooks

Textbook of Preventive and Community Dentistry.2nd edition. S.S Hiremath

A textbook of public health dentistry

Recommended Books

Burt, B. & Eklund, S. (1999) Dentistry, Dental Practice & The Community. 5th ed. Saunders.

Daly B, Watt R, Batchelor P & Treasure E (2002) Essential Dental Public Health, Oxford University Press.

Gluck G & Morganstein WM (2002) Jong's Community Dental Health 5th edition, Mosby.

Harris, N.O. & Christen, A.C. (1987) Primary Preventive Dentistry. 2nd ed. Reston Pub. Co.

Instruments

Examination Instruments

ART

Probes

Mirror

Probe

Tweezer

ART Instruments

Toothbrushing model

Dental Floss

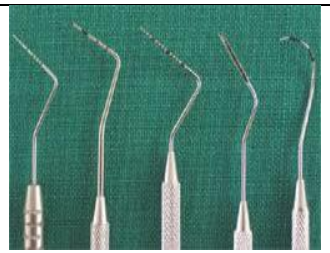
Kent GC, AS Blinkhorn. (1993) The Psychology of Dental Care. 2nd edition, Wright Publication, London.

Murray, J.I. (ed.) (1996) Prevention of Oral Diseases. 3rd ed. Oxford University Press.

Phoon WO & PCY Chen (Eds). (1986) Textbook of Community Medicine in South East Asia. John Wiley & Sons.

Pine CM (ed.). (1997) Community Oral Health. Oxford: Wright Publication.

Scrambler Graham. (2003) Sociology as Applied to Medicine. 5th ed. WB Saunders Company.



CPITN-E and C

Michigan probe

Periodontal probe

Mouthwash

3.PHARMACOLOGY

Textbook

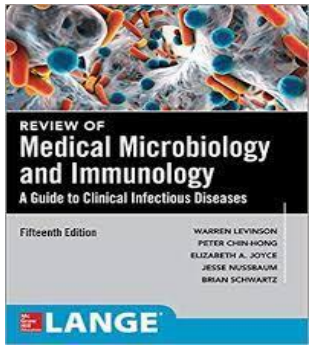
1. Lippincott Illustrated Reviews Pharmacology 6th Edition
2. Basic and clinical Pharmacology by Bertram G Katzung 14th Edition

Reference book

1. The Pharmacological Basis of Therapeutics by Goodman & Gilman 12th Edition
2. Davidson's Principles & Practice of Medicine 22nd Edition

6. GENERAL PATHOLOGY

Books For General Pathology	
Robbins Basic Pathology: with STUDENT CONSULT Online Access (Robbins Pathology)	

Review of Medical Microbiology and Immunology (Lange Medical Books)	

4.PRECLINICAL PROSTHODONTICS & OPERATIVE DENTISTRY

Recommended Books

1. Sturdevant's Art and Science, South Asian Edition.
2. Prosthodontic treatment for edentulous patients by Zarb 13th Edition.
3. McCracken's Removable Partial Prosthodontics 13th Edition.

5-BEHAVIORAL SCIENCES

Recommended Books

1. Handbook of Behavioral Sciences by Mowadat H. Rana (3rd edition)
2. Willumsen, T., Årøen Lein, J. P., Gorter, R. C., & Myran, L. (Eds.). (2002). Oral Health Psychology: Psychological Aspects Related to Dentistry. Springer Publishers. https://doi.org/10.1007/978-3-031-04248-5