M. ISLAM DENTAL COLLEGE
MIDC
KNOWLEDGE HONOUR EXCELLENCE

STUDY GUIDE
BLOCK-VI

BDS YEAR-2

BLOCK: VI

Academic Year: 2026-27

Duration: 13 Weeks

DISCLAIMER

- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
- However, students are advised to use it as a guide for respective modules.
- It is to declare that the learning objectives (general and specific) and the distribution of assessment tools (both theory and practical) are obtained from M. Islam Dental College Gujranwala. These can be obtained from: https://www.uhs.edu.pk/
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
- Students are encouraged to provide feedback via module coordinator.

Vision of UHS

"UHS is a leading University aiming to keep its graduates apt with the ever-emerging global health challenges, evolving educational methodologies, and emerging technological advancements to maintain its distinguishable position as a Medical University."

Mission of MIDC

To emerge as a globally acclaimed institute that prepares compassionate, knowledgeable & skilled dental professionals excelling in innovative research, patient care & community service

Program Outcomes:

At the end of the BDS program, the dental graduate should be able to:

1. **Clinical Competence:** Graduates will demonstrate essential clinical skills, knowledge, and attitude to provide safe, effective, and ethical dental care to diverse populations.
2. **Community-Oriented Care:** Students will develop a commitment to serving underserved communities, understanding the specific oral health challenges faced by Pakistan's population, and contributing to public health initiatives.
3. **Ethical and Professional Conduct:** Graduates will uphold high standards of ethical practice, showing respect, empathy, and accountability in all patient and professional interactions.
4. **Lifelong Learning:** Graduates will embrace lifelong learning, continually updating their skills and knowledge to keep pace with advances in dental science and technology.
5. **Leadership and Collaboration:** Students will be prepared to take on leadership roles within healthcare teams, collaborating effectively with other professionals to enhance patient care.
6. **Research and Innovation:** Graduates will engage in or support research and innovation in dental science, contributing to evidence-based practices that advance oral health in Pakistan.

MODULE COMMITTEE

Sr. No.	Name	Department & Designation	Role
1.	Prof. Dr. Rana Modassir	Principal	Curriculum Director
2.	Prof. Dr. M. Saif Ullah	HOD, DME	Assistant curriculum Director
3.	Dr. Shahid Saeed	Professor Physiology	Coordinator Block-IV
4.	Prof. Dr Raheela	Assoc. Professor Oral Biology	Coordinator Block-V
5.	Dr. Rabia Asad	Professor Community Dentistry	Coordinator Block-VI
Module Team			
6.	Dr. Shahid Saeed	Professor Physiology	Member
7.	Dr Saveela Sadaqat	AP Biochemistry	Member
8.	Dr. Uzma Riaz	Professor Pharmacology	Member
9.	Dr Shmasa Mohsin	Professor Anatomy	Member
10.	Dr. Rabia Asad	Professor Community Dentistry	Member
11.	Dr Shamsa Mohsin	Professor Anatomy	Member
12.	Dr. Zahid	Professor Microbiology	Member
13.	Dr. Sobia Siddique	Professor Oral Pathology	Member
14.	Dr. Zenab Yaasir	Professor Dental Materials	Member
15.	Dr Ahmed Mehmood	Associate Professor Behavioral Science	Member
16.	Dr. Rabeet Asif	DME	Proof reading & Editing
17.	Dr. Nivish	DME	Developer Block-IV

INTRODUCTION TO STUDY GUIDE

It is an aid to Inform students how student learning program of the module has been organized, to help students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

The Study Guide:

1. Communicates information on organization and management of the module.
2. This will help the student to contact the right person in case of any difficulty.
3. Defines the objectives which are expected to be achieved at the end of the module.
4. Identifies the learning strategies such as lectures, small group teachings.

Module Outcomes:

5. Provides a list of learning resources such as books, computer-assisted learning programs, web links, and journals, for students to consult in order to maximize their learning.
6. Highlights information on the contribution of continuous on the student's overall performance.
7. Includes information on the assessment methods that will be held to determine every student's performance.

Achievement of Objectives:

Focuses on information pertaining to examination policy, rules and regulations

Students will experience an integrated curriculum.

Integrated Curriculum:

An integrated curriculum is all about making connections, whether to real life or across the disciplines, about skills or about knowledge. An integrated curriculum fuses subject areas, experiences, and real-life knowledge together to make a more fulfilling and tangible learning environment for students. Integrated teaching means that subjects are presented as a meaningful whole. Students will be able to have better understanding of basic sciences when they repeatedly learn in relation to clinical examples. Case based discussions, computer-based assignments, early exposure to clinics, wards, and skills acquisition in skills lab are characteristics of integrated teaching program.

TEACHING AND LEARNING STRATEGIES

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

1. Interactive Lectures
2. Small Group Discussion
3. Practical
4. Skills session in skill labs
5. Case-Based Learning (tutorials)
6. Directed Self-Learning

- **Interactive lectures:**
  An interactive lecture is an easy way for instructors to intellectually engage and involve students as active participants in a lecture - based class of any size.

- **Small group discussion (SGD):**
  Students learn from each other. Everyone gets more practice at expressing their ideas. A two-way discussion is almost always more creative than individual thoughts. Social skills are practiced in a 'safe' environment e.g. tolerance, cooperation.

- **Skills session:**
  Skills relevant to respective module are observed and practiced where applicable in skills laboratory or Laboratories of various departments.

- **Case Based Learning (CBL):**
  A small group discussion format where learning is focused on a series of questions based on a clinical scenario. Students discuss and answer the questions by applying relevant knowledge gained previously in clinical and basic health sciences during the module and construct new knowledge. The CBD will be provided by the concerned department. It is an active learning & teaching strategy which promotes application of foundational knowledge in relevant clinical scenarios.

- **Directed Self-learning (DSL):**
  Directed Self-learning, which involves studying with indirect supervision in a classroom/Library, is a valuable way to learn and is quickly growing in popularity among parents and students.

Students' assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Centre, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

BLOCK-VI

Sr. No.	MODULES	WEEKS
1-	Occlusion III	4
2-	Community Dentistry & Public Health II	4
3-	Respiration	5
	Total	13 Weeks

OCCLUSION -III

Specific Learning Objective:

THEORY				
ORAL BIOLOGY & TOOTH MORPHOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Facial Growth, Facial Types, and Occlusal Parameters	**Identify and describe various facial types and profiles,**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Concept of Oral Health and Disease	**Compare morphological and anatomical differences between male and female faces.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
	Explain the basic concepts of facial growth and bone remodeling.	**LGIS (Lecture Hall 2)**	**C2**	
PROSTHODONTICS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Articulators: Types, Uses, and Limitations	**Define articulation Identify the types of articulators, explaining their uses and limitations in tooth setup**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
ORTHODONTICS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels**	**Assessment**

			C/P/A	
Normal Occlusion and Key Characteristics	**Define occlusion and normal incisor, canine, and first molar relationships, overjet, and overbite.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
Malocclusion — Definitions, & Classification	**Define and differentiate between normal occlusion and malocclusion.**		**C1**	**MCQs, OSPE, OSVE**
	Classify different types of malocclusions using Angle's classification system.	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
OPERATIVE DENTISTRY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Principles and Steps of Class II Cavity Preparation	**Describe the principles of Class II cavity preparation, including indications, outline form, resistance and retention**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	instrumentation, and the rationale for each step in relation to tooth morphology and caries progression.			**MCQs, OSPE, OSVE**
Application of Liners and Bases in Cavity Preparation	**Enlist steps of applying liners & bases in a prepared cavity**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
Identification of Occlusal High Spots	**Enlist the features that indicate an occlusal high spot.**	**LGIS (Lecture Hall**	**C1**	**MCQs, OSPE, OSVE**

		2)		
Complications of Unadjusted Occlusal High Spots in Restorations	Enlist the complications that may arise due to unadjusted occlusal high spots in restorations.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Matrix system	1. Define a matrix system and explain its role in Class II restorations. 2. Enlist the components of a matrix system (matrix band, retainer, wedge). 3. Identify the types of matrix systems used in operative dentistry: • Tofflemire (Universal matrix) • Ivory matrix • Sectional matrix system (introductory level) • Automatrix system	LGIS (Lecture Hall 2)	C1 C3	MCQs, OSPE, OSVE
Wedges	1. Explain the functions of wedges in Class II restorations. 2. Discuss the consequences of improper matrix or wedge placement, such as:	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE

	• Open proximal contacts • Gingival overhangs • Poor contour and marginal leakage			
SCIENCE OF DENTAL MATERIALS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
	Identify and classify non-elastic impression materials and discuss their composition, properties, setting reactions and uses.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Non-Elastic Impression Materials	**Evaluate the advantages and disadvantages of non-elastic impression materials.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Describe and differentiate between mucostatic, mucocompressive, and selective pressure techniques for complete denture impressions.	**LGIS (Lecture Hall 2)**		**MCQs, OSPE, OSVE**
Relining, and Rebasing Materials	**Explain and evaluate the concept of relining and rebasing dentures, including indications.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Identify different types of relining and rebasing materials and describe their composition and indications for clinical use.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**

	Define the role of tissue conditioners as short term denture soft liner	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
Separating Media	**Identify and classify the various separating media used in dental laboratory procedures.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
	Explain the purpose and mechanism of separating media in preventing material adhesion during processing.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Describe the composition, manipulation, and clinical relevance of commonly used separating media.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Cast Metals, Alloys	**Enlist the significance of crystalline structure, solid solution, and eutectic alloys in determining the properties of dental metals.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Identify and describe key mechanical and physical properties required in dental casting alloys.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
	Classify and describe noble metal casting alloys and their uses in fixed and removable prosthodontics.	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Compare base metal casting alloys (Ni-Cr, Co-Cr, Ti-based) in terms of physical properties, biocompatibility, and indications.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

Investment Material and Casting Procedures	Define investment materials and classify them based on composition and application.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Describe the components of gypsum-bonded, phosphate-bonded, and silica-bonded investment materials.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Explain the functions of investment materials in the dental casting process.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Define setting and thermal expansion in investment materials	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Describe the desirable properties of dental investment materials.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Describe and sequence the steps in the dental casting procedure from pattern fabrication to finishing.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Identify different types and causes of porosity in dental castings.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
	Analyze the causes of common casting defects and suggest preventive measures.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
	Describe the design, types, and functions of sprue formers in dental casting.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Explain Principles of cutting,	LGIS	C2	MCQs, OSPE,

Finishing and polishing	grinding, finishing and polishing.	(Lecture Hall 2)		OSVE
	Identify significance of finishing and polishing procedures.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
	Compare two body and three body wear.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Define abrasion, erosion and air abrasion technology	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Enlist hazards of abrasive procedures	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Enumerate different types of abrasives and their uses in dentistry	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
PRACTICALS / LAB WORK				
PROSTHODONTICS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Fabrication of Occlusal Rims	Construct occlusal rims on trial denture upper and lower base plates with appropriate dimensions and contours.	Practical lab	C3/P	OSPE

Articulation of Base Plates with Occlusal Rims	**Mount upper and lower base plates with occlusal rims on semi-adjustable articulators**	**Practical lab**	**C3/P**	**OSPE**
Setup of Upper Anterior Teeth	**Arrange upper anterior teeth on the occlusal rim with proper alignment.**	**Practical lab**	**C3/P**	**OSPE**
Setup of Lower Anterior Teeth	**Arrange lower anterior teeth ensuring correct overbite, and overjet.**	**Practical lab**	**C3/P**	**OSPE**
Setup of Upper Posterior Teeth	**Arrange upper posterior teeth**	**Practical lab**	**C3/P**	**OSPE**
Setup of Lower Posterior Teeth	**Arrange lower posterior teeth to achieve proper intercuspation**	**Practical lab**	**C3/P**	**OSPE**
Wax-Up, Carving, and Festooning	**Perform wax finishing, carving, and festooning**	**Practical lab**	**C3/P**	**OSPE**
Flasking and Dewaxing of Complete Dentures	**Demonstrate correct flasking and dewaxing procedures for processing complete dentures.**	**Practical lab**	**C3/P**	**OSPE**
Packing and Curing of Complete Dentures	**Perform packing and curing of complete dentures using appropriate resin materials and curing cycles. Perform Denture finishing & polishing**	**Practical lab**	**C3/P**	**OSPE**
OPERATIVE DENTISTRY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Class II Cavity Preparation for Amalgam	**Prepare a G.V. Black's Class II cavity on typodont for an amalgam**	**Practical lab**	**C3/P**	**OSPE**

Restoration	**restoration maintaining isolation.**			
Matrix Band Placement	**Place a matrix band correctly and stabilize it using a wedge to achieve proper gingival adaptation.**	**Practical lab**	**C3/P**	**OSPE**
Wedge insertion technique	**Demonstrate correct wedge insertion technique (direction, size, and position) on a typodont/phantom head model.**	**Practical lab**	**C3/P**	**OSPE**
Application of Liners and Bases	**Apply liners & bases in a prepared cavity**	**Practical lab**	**C3/P**	**OSPE**
Amalgam Restoration Techniques: Trituration, Condensation, Carving, and Finishing	**Restore a prepared Class II cavity on a typodont with dental amalgam, following proper techniques of trituration, condensation, carving, and finishing.**	**Practical lab**	**C3/P**	**OSPE**
Assessment of completed restoration	**Assess the completed restoration for gingival overhangs, marginal adaptation, and proximal contact after removal of the matrix and wedge.**	**Practical lab**	**C3/P**	**OSPE**

SCIENCE OF DENTAL MATERIALS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**

materials Non-elastic impression	**Demonstrate and perform proper techniques for manipulation of non- elastic impression materials.** i. **Impression compound** ii. **Zinc oxide Eugenol impression pastes**	**Practical lab**	**C2**	**OSPE**

COMMUNITY DENTISTRY & PUBLIC HEALTH – II

Specific Learning Outcomes:

THEORY				
COMMUNITY & PREVENTIVE DENTISTRY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Oral health promotion	**Define oral health promotion and outline its key principles**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Apply the principles of health promotion and disease prevention to design oral health strategies.		**C2**	
	Describe the five areas for action in the Ottawa Charter and illustrate each with oral health examples.		**C2**	
	List potential partners and community settings for oral health promotion activities		**C1**	
Dental Auxiliaries	**Define dental auxiliaries, and describe their roles in oral health delivery systems**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
Introduction to the health care system	**Discuss the Primary Health Care (PHC) approach and explain the principles of the Alma-Ata Declaration.**		**C2**	
	Outline factors influencing the development and evaluation of		**C2**	

	healthcare systems.			
	Describe the different components of a healthcare system		**C2**	
	Outline the criteria for evaluating healthcare systems		**C2**	
Quality assurance cycle	**Define quality in healthcare and explain the quality assurance/audit cycle.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Discuss the models of access to healthcare and apply the concept practically in a dental setting.	**LGIS (Lecture Hall 2)**	**C2**	
Planning dental services	**Define planning and explain the steps of the rational planning model for dental services.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Describe evaluation and its types, and identify the range of information needed for dental service planning.		**C2**	
	Define concepts of need		**C1**	
Financing oral health care	**Outline the stages necessary in planning strategy.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Explain the basic principles of health economics and outline payment and remuneration systems in oral health care.		**C2**	
	Explain the Health goals of a program		**C2**	

Problem with health care services and health care system	Describe common problems with healthcare delivery	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Discuss different barriers to dental care reception		C2	
	Define the terms access to care /and barriers to care		C1	
	Outline how the barriers to care might be overcome for disadvantaged groups		C2	
Dental Public Health	Define determinants of health and equality	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Oral	Describe the educational process with its domains		C2	
	Explain the concept of educational theories/ models		C2	
	Define Oral health education, its settings, and approaches		C1	
	Describe the objectives of oral health education	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Identify principles of oral health education		C1	
	Explain the steps in planning Oral Health Education		C2	
	Discuss the three levels of prevention of oral diseases		C2	

Health Education	Discuss the health care system and the levels of prevention per Pakistani system		C2	

PSYCHIATRY & BEHAVIORAL SCIENCES				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Intelligence and dental practice	Explain how intelligence impacts clinical work in dentistry.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Describe application of practical approaches to strengthen emotional intelligence using cognitive abilities effectively in dental settings.		C2	
Factors Affecting Personality and Intelligence	Describe how genetic, environmental, and social factors shape personality and intelligence.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Explain the interplay of nature and nurture in shaping behaviors and characteristics of dental professionals and patients.		C2	
Learning Theories and Behavior Change	Define learning principles and styles.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Apply learning theories to		C2	

	behavior change in clinical dental settings.			
Counseling Techniques in Dental Healthcare	Explain basic counseling principles.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Recognize the role of counseling in dental healthcare.		C2	
Motivation Theories and Applications	Define motivation and distinguish its types.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Apply motivational theories to improve student learning.		C2	
Psycho-Social Aspects of Disease	Describe psychological aspects of hospitalization.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Define palliative care and psychosocial support.		C1	
Family Dynamics and Health-Seeking Behaviors	Describe the various family structures and parenting styles and their key characteristics.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Describe key health belief models and the factors that influence help- seeking behaviors in dental settings.		C2	
Health Inequalities	Explain how social constructs shape perceptions, attitudes, and practices related to oral health.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Socioeconomic Impacts	Recognize health disparities and socioeconomic impacts on oral health.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE

Child Development and Adolescence	Describe cognitive and psychosocial development stages.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Explain challenges during puberty and adolescence.		C2	
Ageing and Dental Practice	Describe social, societal, and biological aspects of aging.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Explain implications for dental care in old patients.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Behavioral Influences on Oral Health Outcomes	Recognize how behavior affects oral health outcomes.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Explain strategies to promote healthy oral behaviors.		C2	
Treatment Adherence and Compliance	Describe factors affecting adherence.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Explain the strategies to improve compliance in dental patients.		C2	MCQs, OSPE, OSVE
Medically Unexplained Oral Symptoms Management	Discuss the implications of somatic symptom disorders for diagnosis, communication, and management in dentistry.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE

	Discuss the principles guiding the management of medically unexplained oral symptoms in dental practice.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Communication Skills in Dentistry	Explain the concepts of active listening and empathy.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Discuss how different questioning and communication approaches influence the quality of information gathered during patient-doctor interaction.		C2	

PRACTICALS / LAB WORK

COMMUNITY & PRESVENTIVE DENTISTRY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Oral Health Education	Deliver a short OHE message to classmates using lab models (tooth models, charts, typodonts).	Practical lab	P3/A2	OSPE
Levels of Prevention Classification	Classify example cases into primary, secondary, and tertiary prevention using different scenarios	Practical lab	C1/P	OSPE

PSYCHIATRY & BEHAVIORAL SCIENCES

Topic	Specific Learning Outcomes	Teaching Strategy	Levels	Assessment

			C/P/A	
Intelligence (IQ & EQ) and Dental Practice	**Identify variations in intelligence and emotional intelligence using written case scenarios and explain how communication should be adapted.**	**Practical lab**	**C3**	**OSPE**
Nature vs Nurture	**Differentiate nature and nurture factors in case scenarios and describe their effect on behavior and cooperation.**	**Practical lab**	**C3**	**OSPE**
Recognizing Health Disparities & Social Inequalities	**Analyze case scenarios to identify socioeconomic or social-construct– based influences on oral health.**	**Practical lab**	**C3**	**OSPE**
Social Constructs & Their Influence on Oral Health	**Evaluate cases showing social constructs (gender roles, stigma, norms) influencing oral health behavior.**	**Practical lab**	**C3**	**OSPE**

RESPIRATION

Specific Learning Outcomes:

THEORY				
HISTOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Microscopic Structure of Respiratory and Olfactory Epithelium	**Identify the cells of respiratory epithelium and describe their functions.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
	Identify the cells of olfactory epithelium and explain their functions.		**C3**	
Trachea	**Describe and identify the histological features of the trachea under microscope.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Describe the anatomical features and neurovascular supply of the trachea.		**C2**	
	Explain the anatomical basis and possible complications of tracheostomy.		**C2**	
PHYSIOLOGY				

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Introduction and Functional Anatomy	Describe the functional divisions of the respiratory system.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Differentiate between respiratory and non-respiratory functions of the respiratory system.		C3	
	Identify the layers of the respiratory membrane.		C3	
Introduction and Functional Anatomy	Discuss the mechanics of ventilation.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Identify the muscles of inspiration and expiration in quiet and strenuous breathing.		C3	
	Define interalveolar, intrapleural, and transpulmonary pressures and state their normal values during inspiration and expiration.		C1	
	Define and explain lung compliance and discuss factors affecting it.		C1	
	List the components of surfactant and explain its role in reducing alveolar surface tension.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Discuss the significance of surfactant in premature infants		C2	
	Define and describe normal lung volumes and capacities with their	LGIS (Lecture Hall 2)	C2	MCQs, OSPE,

Pulmonary Volumes, Capacities, and Ventilation	normal values.			OSVE
	Define and explain the types and functions of respiratory dead spaces, including the normal value of anatomical dead space.		C2	
	Define alveolar ventilation and minute respiratory volume.		C1	
	State the normal respiratory rate.		C1	
	Draw and interpret a spirogram showing respiratory excursions during normal, maximal inspiration, and maximal expiration.		C3	
	Define forced vital capacity (FVC), forced expiratory volume in one second (FEV_1), and FEV_1/FVC ratio, and compare these values in normal and COPD patients		C1	
Gas Exchange and Diffusion	Describe the factors affecting gas diffusion through the respiratory membrane.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	Define diffusing capacity for a gas.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Define partial pressure of a gas and state normal values of oxygen (O_2) and carbon dioxide (CO_2) in arterial and venous blood, as well as their partial pressures in atmospheric and alveolar air		C1	
	Explain the different forms of	LGIS (Lecture Hall 2)	C2	MCQs,

Transport of Gases Hemoglobin and Oxygen	oxygen transport in the blood.			OSPE, OSVE
	Describe the mechanisms of carbon dioxide transport in the blood		C2	
	Describe the structure and functions of hemoglobin, oxygen transport, oxygen dissociation curve, and factors that shift it.		C2	
Neural and Chemical Control of Respiration	Identify and describe the components of the respiratory centers and explain their functions.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
	Discuss the inspiratory ramp signal and the Hering–Breuer inflation reflex.		C2	

	Explain the chemical control of respiration.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
	State the normal arterial and venous partial pressures of O_2 and CO_2, and pH values.		C1	
	Locate central and peripheral chemoreceptors and explain their roles in the regulation of respiration.		C1	
Applied Physiology	Explain the effect of exercise on respiration.		C2	
	Define and classify different types and causes of cyanosis.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE

	Differentiate types of hypoxia and explain their effects on the body.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
	Explain the mechanism and effects of carbon monoxide poisoning.		C2	
	Differentiate sleep apnea, Cheyne–Stokes breathing, dyspnea, tachypnea, hypercapnia, asphyxia, and respiratory failure.		C3	

BIOCHEMISTRY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Chemical Composition of the Human Body	Describe the major chemical components of the human body and explain their relative proportions.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Water and Its Biological Importance	Explain the importance of water in the human body.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Body Fluids	Define intracellular and extracellular fluids and describe their functions.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Ionization of Water	Describe the ionization of water and define the ion product constant (Kw).	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Acids and Bases	Differentiate between strong and weak acids with suitable examples.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE

pH and Acid–Base Concepts	**Explain the concepts of pH, pH scale, Ka, and pKa.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
pH of Body Fluids	**State the normal pH of various body fluids.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**

Sources of Acids	**Identify the sources of volatile (CO_2) and fixed acids in the human body.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Determination of pH	**Describe methods used for approximate and accurate determination of pH.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Effect of pH on Biomolecules	**Explain the effects of pH on the structure and function of biological macromolecules such as enzymes, nitrogenous bases, and plasma proteins.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Titration Curve and Buffering Capacity	**Interpret the titration curve of a weak acid with reference to buffering capacity.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Henderson–Hasselbalch Equation	**Write the Henderson–Hasselbalch equation and describe its applications in physiology.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
pH Calculation	**Calculate the pH of arterial blood using the Henderson–Hasselbalch equation.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**

Alkali Reserve	**Define alkali reserve and explain its physiological significance.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
Buffer Systems	**Define buffers and identify their components.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Describe the factors determining buffering capacity.		**C2**	
	Explain the mechanism of action of a buffer system.		**C2**	
	List the principal buffers in various body fluids.		**C1**	
	Explain the mechanisms of the bicarbonate and phosphate buffer systems.		**C2**	
pH Regulation Mechanisms	**Explain the respiratory mechanisms involved in homeostasis.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
)efense Mechanisms in H Regulation	**Identify the first, second, and third lines of defense against changes in hydrogen ion concentration.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Acid–Base Imbalance	**Classify acid–base disorders and describe their causes and compensatory mechanisms in: metabolic acidosis, respiratory acidosis, metabolic alkalosis, and respiratory alkalosis.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**

Introduction to Metabolism	**Define metabolism and explain the concept of the metabolic map.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**

Anabolism vs Catabolism	**Compare anabolic and catabolic pathways.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Biochemical Pathways and Reactions	**Differentiate between biochemical cycles and pathways and between reversible and irreversible reactions, using suitable examples.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Glycolysis	**Define glycolysis and describe its reactions, regulation, significance, and energy yield under aerobic and anaerobic conditions.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
Clinical Correlation – Pyruvate Kinase Deficiency	**Apply the knowledge of glycolysis to interpret clinical features of pyruvate kinase deficiency.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Lactic Acidosis	**Identify the causes of lactic acidosis.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Pyruvate Metabolism	**Describe the conversion of pyruvate into lactate, acetyl-CoA,oxaloacetate, alanine, and ethanol.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

Pyruvate Dehydrogenase Complex	**Elaborate the reaction catalyzed by the pyruvate dehydrogenase complex, highlighting the roles of E1, E2, and E3 components.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Citric Acid Cycle	**Describe the reactions, regulation, and significance of the citric acid cycle, and calculate its total ATP yield.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Glycogen Storage Diseases	**Apply the knowledge of glycogen metabolism to interpret the biochemical basis of glycogen storage diseases (Type Ia, Ib, II, III, V, and VI).**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Pentose Phosphate Pathway	**Describe the oxidative and non-oxidative phases of the pentose phosphate pathway and identify the major product of each phase.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
NADPH and Cellular Function	**Identify the reactions of the pentose phosphate pathway that yield NADPH and explain its major cellular uses.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
G6PD Deficiency	**Explain the biochemical basis of hemolysis in glucose-6-phosphate dehydrogenase (G6PD) deficiency.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

Comparison: PPP vs Glycolysis	**Compare the pentose phosphate pathway with glycolysis in terms of function and products.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
ETC: Inhibitors, Uncouplers, and Energy Production	**Identify the effects of ETC inhibitors and uncouplers on electron transport and ATP synthesis, and discuss their implications for cellular energy production.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**

PHARMACOLOGY & THERAPEUTICS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Cough and Its Management	**Classify drugs used in the management of cough as antitussives, expectorants, and mucolytics.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Classify and describe mechanism of action for drugs used in the management of cough as antitussives, expectorants, and mucolytics.	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Describe the pharmacological strategies for the treatment of asthma.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Enumerate the drugs used for	**LGIS (Lecture Hall 2)**	**C1**	**MCQs,**

	prophylaxis of asthma.			**OSPE, OSVE**
Asthma	**Classify the drugs used in the treatment of asthma.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Explain the mechanism of action, clinical uses, and side effects of β_2-adrenergic agonists used in asthma.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Describe the salient features and adverse effects of methylxanthines.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Explain the pharmacological effects of antimuscarinic drugs, mast cell stabilizers, and leukotriene inhibitors in asthma management.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Elaborate on the anti-inflammatory effects of corticosteroids in asthma.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Explain the pharmacological management of an acute asthma attack.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Recall the histamine receptor subtypes and describe their mechanisms of action.	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Explain the pharmacological effects and potential indications of histamine.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

Antihistamines	**Enumerate the different types of histamine antagonists.**		**C1**	
	Classify antihistamines.		**C1**	
	Discuss the pharmacology of H_1 antihistamines with emphasis on clinical uses, adverse reactions, and drug interactions.		**C2**	
	Differentiate between first- and second-generation H_1 antihistamines.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Antitubercular Drugs	**Describe the different types of tuberculosis.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Enumerate the first-line and second-line antitubercular drugs.		**C1**	
	Explain the mechanism of action, clinical uses, and adverse effects of isoniazid and rifampicin.		**C2**	
	Explain the mechanism of action, clinical uses, and adverse effects of ethambutol and pyrazinamide.		**C2**	
	Enumerate the drugs and doses used for tuberculosis		**C1**	

	prophylaxis.			
	Describe the standard treatment regimen for new tuberculosis patients.		C2	
	Enumerate the drugs used for resistant, MDR, and XDR tuberculosis.		C1	

PATHOLOGY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Introduction to the Respiratory System	Explain the general overview of the respiratory system.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Respiratory tract Infections	Define upper respiratory tract Infections and lower respiratory tract Infections. Enlist various Respiratory tract Infections causing agents	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Regulation of Breathing	Explain the control of breathing.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Asthma	Explain the mechanisms involved in asthma.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Upper Respiratory	Enumerate the common upper respiratory tract disorders, including	LGIS (Lecture Hall 2)	C1	MCQs, OSPE,

Tract Disorders	**infections and sinusitis.**			**OSVE**
Etiology of Upper Respiratory Tract Disorders	**Describe the causes of upper respiratory tract disorders.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Oral Implications of URTIs	**Explain the oral health implications of upper respiratory tract infections.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Lower Respiratory Tract Disorders	**Enumerate major lower respiratory tract disorders, including chronic obstructive pulmonary disease (COPD) and cystic fibrosis.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
COPD	**Classify chronic obstructive pulmonary disorders.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
	Differentiate the subtypes of COPD based on their pathological features.		**C3**	
	Describe the oral health implications of COPD, including dental caries, erosions, periodontal diseases, and candidiasis.		**C2**	
Pneumonia	**Classify pneumonias into viral, bacterial, and hospital-acquired types.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE,OSVE**
	Explain the pathological features of pneumonias caused by human coronavirus.		**C2**	
	Describe the oral health considerations in pneumonias caused by human		**C2**	

	coronavirus.			
Common Bacterial Respiratory Tract Infections	• **Describe the basic epidemiology and transmission of common bacterial respiratory tract pathogens.** • **Explain the key virulence factors and general pathogenesis of *Streptococcus pyogenes*, *Streptococcus pneumoniae*, and *Haemophilus influenzae*.** • **Outline the clinical significance of *Streptococcus pyogenes*, including immune-mediated complications.** • **Describe the basic principles of laboratory diagnosis of common bacterial respiratory infections.** • **Discuss general preventive measures, including vaccination and infection control practices.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Atypical and Opportunistic Bacterial Respiratory Infections	• **Differentiate between typical and atypical bacterial respiratory pathogens. Describe the epidemiology and modes of**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**

	transmission of atypical respiratory bacteria. • **Explain the basic pathogenic mechanisms of *Mycoplasma 42neumonia*, *Legionella pneumophila*, and *Klebsiella 42neumonia*.** • **Outline the general laboratory approaches used for identification of atypical respiratory pathogens.**		**C2**	

	Discuss preventive strategies, including environmental and hospital-based infection control measures.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Hospital-Acquired and Opportunistic Infections	• **Describe the epidemiology and clinical importance of *Pseudomonas aeruginosa* as an opportunistic pathogen.** • **Explain the major virulence factors and basicpathogenesis of** • ***Pseudomonas aeruginosa*.** • **Outline the general principles of laboratory diagnosis of *Pseudomonas*** • **infections.** • **Discuss the importance of infection control and prevention of hospital- acquired infections.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

Tuberculosis and Chronic Respiratory Infections	• **Describe the epidemiology and transmission of *Mycobacterium tuberculosis*.** • **Explain the basic pathogenesis of tuberculosis.** • **Outline the concept of drug-resistant tuberculosis, including MDR-TB and XDR-TB.** • **Describe the general principles of laboratory diagnosis of tuberculosis. Discuss preventive measures, including public health strategies and** • **infection control.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Viral Respiratory Infections of Public Health Importance	• **Describe the epidemiology and modes of transmission of common viral respiratory infections.** • **Explain the basic pathogenesis of Influenza virus and SARS-CoV-2. Outline the general laboratory methods used for diagnosis of viral respiratory infections.** • **Discuss preventive strategies, including vaccination and standard infection control precautions.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

Viral Diseases with Oral and Salivary Gland Involvement	• **Describe the epidemiology and transmission of measles and mumps viruses.** • **Explain the basic pathogenesis of measles and mumps infections. Identify common oral and salivary gland manifestations associated with these viral diseases.** • **Outline general laboratory diagnostic approaches for these viral infections.** • **Discuss preventive measures, including immunization**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Granulomatous Lung Disorders	**Describe granulomatous lung disorders such as tuberculosis, sarcoidosis, and Wegener's granulomatosis.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Identify the oral manifestations of granulomatous lung disorders.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Oral Lesions in Tuberculosis	**Describe the oral manifestations specifically associated with pulmonary tuberculosis.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Lung Cancer	**Describe the pathological overview of lung cancer.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Explain the occurrence and features of jaw and oral cavity metastasis in lung cancer.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

Dental Management in Respiratory Diseases	Describe general oral health considerations in patients with respiratory infections.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
PRACTICALS / LAB WORK				
PHARMACOLOGY & THERAPEUTICS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
General and Local Anesthetics: Routes of Administration and Pre-anesthetic Medications	Demonstrate the routes of administration for anesthetic agents and pre- anesthetic medications.	Practical Lab	C3/P	OSPE
Drugs Used in Bronchial Asthma	Write an appropriate prescription for the management of asthma and status asthmaticus.	Practical Lab	C3/P	OSPE
Antihistamines and Antiallergic Drugs	Write an appropriate prescription for the treatment of hay fever and allergic rhinitis.	Practical Lab	C3/P	OSPE
Antitussives and Expectorants	Write an appropriate prescription for the management of chronic cough.	Practical Lab	C3/P	OSPE
Antitubercular Drugs	Write an appropriate prescription for the treatment of tuberculosis.	Practical Lab	C3/P	OSPE

HISTOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Trachea	**Identify and illustrate the histological features of the trachea under light microscope**	**Practical Lab**	**C3/P**	**OSPE**

PRISME

Sr. No.	Domain	Learning Outcomes
1.	Professionalism	• Identify patients whose physical symptoms (in conditions like bruxism, TMJ issues, Muscle spasms, angina referral, etc.) may be stress-related and communicate this professionally and empathetically, offering appropriate initial management or referral. • Develop coping strategies for managing stress in personal and professional life. • Provide effective counseling to patients undergoing dental treatments. • Develop therapeutic relationships with parents of pediatric dental patients.
2.	Research	• Design and conduct a simple oral health survey following standardized steps. • Describe data types, variables, statistical methods, sampling techniques, and present findings graphically Formulate clear, measurable research objectives for oral health research projects. • Interpret and calculate various measures of data • Correlate standard deviation with mean and the concept of normal distribution
3.	Informatics	• Describe plagiarism & academic integrity issues
4.	Social Responsibility	• Educate patients on managing periodontal conditions.

		• Set realistic expectations for dental treatments. • Promote healthy oral behaviors in community. • Apply palliative care principles
5.	Management & Entrepreneurship	• Identify errors and suggest improvements in lab or workflow. • Demonstrate awareness of safety and quality measures in pre-clinical settings.
6.	Evidence Based Dentistry	• Implement simple behavior-change strategies for routine dental problems (oral hygiene) • Explain the basic principles of cognitive behavioral therapy (CBT) relevant to the management of dental anxiety.

CFR-C

Sr. No.	CFR-C	Teaching Strategy	Levels C/P/A	Assessment
1.	Waste Disposal in Dentistry	SGD (Skills Lab)	C3/P	OSPE/OSCE
2.	Sterilization & Disinfection	SGD (Skills Lab)	C3/P	OSPE/OSCE
3.	Needle Stick Injury	SGD (Skills Lab)	C3/P	OSPE/OSCE
4.	Prescription Writing	SGD (Skills Lab)	C3/P	OSPE/OSCE
5.	Measurement of Respiratory Rate	SGD (Skills Lab)	C3/P	OSPE/OSCE
6.	Inhaler and Spacer Use	SGD (Skills Lab)	C3/P	OSPE/OSCE

ASSESSMENT POLICY

BLOCK-VI								
Sr. No.	**Theory**			**Practical**				**Total**
1-	**Occlusion III – 48 MCQs**	**48 MCQs**	**120 Marks**	**Practical Clinical Examination**	**06 OSPE (9 marks each)**	**06 Stations x 9 = 54 Marks**	**72 Marks**	**300 Marks**
2-	**Community Dentistry & Public Health II – 40 MCQs**	**42 MCQs**			**02 OSCE (9 marks each)**	**02 Stations x 9 = 18 Marks**		
3-	**Respiration – 32 MCQs**	**24 MCQs**			**08 OSVE (01 station - PRISME) (6 marks each)**	**08 Stations x 6 = 48 Marks**	**48 Marks**	
Internal Assessment 10%			**Internal Assessment 10%**					

BLOCK EXAM TOTAL = 300 MARKS			
Theory Exam	**120 Marks**	**Practical/Clinical Exam**	**120 Marks**
Internal Assessment 10%	**30 Marks**	**Internal Assessment 10%**	**30 Marks**
Theory Exam = Internal Assessment	**150 Marks**	**Practical/Clinical Exam + Internal Assessment**	**150 Marks**

INTERNAL ASSESSMENT

It shall constitute 20% of the total assessment at the end of the academic year

	SCORING PARAMETER	WEIGHTAGE (PERCENTAGE)
Theory 10%	Attendance	75% attendance -1% >85% attendance -2%
	Block exam	5%
	Continuous assessment	3%
Practical 10%	Attendance	75% attendance -1% >85% attendance -2%
	Block Exam	5%
	Portfolio-Clinical Logbooks (CFRC,PRISME)	3%

Time Tables:

The timetables for the module will be shared via WhatsApp groups and the notice boards in advance.

ASSESSMENT TOOLS

In order to ensure transparency, validity, and reliability in student assessment, it is hereby notified that the following assessment tools shall be used as integral components of the BDS Assessment Program.

These assessment tools have been selected in accordance with the examination and assessment framework prescribed by University of Health Sciences Lahore

The following tools shall be employed for both **formative and summative assessments** of BDS students:

1. **Multiple Choice Questions (MCQs)** – to assess cognitive knowledge, clinical reasoning, and application of concepts.
2. **Short Answer Questions (SAQs)** – to evaluate analytical thinking, interpretation, and written expression of knowledge.
3. **Objective Structured Practical Examination (OSPE)** – to assess laboratory and practical competencies in basic and pre-clinical sciences.
4. **Objective Structured Clinical Examination (OSCE)** – to evaluate clinical skills, communication skills, professionalism, and patient-centered competencies.
5. **Objective Structured Viva Examination (OSVE)** – to assess conceptual understanding, clinical reasoning, and professional judgment through structured viva stations.

All HODs are directed to incorporate the above-mentioned tools in their internal assessments, send-up examinations, and professional examination preparation processes.

LEARNING RESOURCES FOR STUDENTS

ANATOMY

- Color Atlas of Anatomy by Mc Minn
- Clinically Oriented Development Anatomy by K. L. Moore
- Anatomy for Dental Students by D. R. Johnson & K. L. Moore
- Clinical Neuroanatomy by R. Snell
- High Yeild Neuroanatomy by James D Fix
- Last's Anatomy by R.M.H. McMinn
- Cunningham's Manual of Practical Anatomy
- Gray's Text Book of Anatomy
- Text Book of Anatomy by Hamilton
- Langman's Medical Embryology by Thomas W. Sadler

HISTOLOGY

- Colour Textbook of Histology (2nd Ed) 2001. Gartner & Hiatt. Published by Saunders. ISBN 0721688063
- Basic Histology (10th Ed) Junqueira, Carneiro Contopoulos. Published by Appleton & Lange. ISBN 0838503764
- Essential Histology (1993 Ed. Rev.) Published by Lippincott. ISBN 0397510624
- Wheater Functional Histology Text & Colour Atlas (4th Ed) 2000. Wheater, Burkitt, Young & Heath. Published by Churchill Livingstone. ISBN 0443056129
- Atlas of Functional Histology 1999 Kerr. Published by Mosby ISBN 0723430721
- Human Histology (2nd Ed) 1996 Stevens & Lowe. Published by Mosby. ISBN 0723424853

PHYSIOLOGY

- Textbook of Medical Physiology (10th Ed) Sept.2000 Guyton. Published by Saunders. ISBN 072168677X.

- Review of Medical Physiology (20th Ed) 2001 Ganong. Published by Appleton & Lange. ISBN 0838582826
- Physiology (2nd Revised Ed) 1998 Linda S Costanzo. Published by W B Sanders, ISBN 0721666116
- Lecture Notes on Human Physiology (4th Ed) Bray JJ, Cragg, PA, MacKnight ADC, Mills RG & Taylor D W. Published by Blackwell, ISBN 0865427755.
- Human Physiology (8th Ed) 1998. Vander, Sherman & Luciano. Published by McGraw Hill. ISBN 0071182543
- Principles of Physiology (3rd Ed)2000 Berne RM & Levy MW. Published by Mosby (HBJ). ISBN 0-323-00813-5
- Physiology (4th Ed) 1998. Berne R M & Levy M W. Published by Mosby (HBJ). ISBN 0815109520.
- Guyton and Hall - Physiology Review (MCQ Book)

BIOCHEMISTRY

- Lippincots illustrated Reviews, Biochemistry
- Basic and Applied Dental Biochemistry by Williams & Elliott Harper's Biochemistry
- Berg, Tymoczko & Stryer, 5th edition (2002). Biochemistry
- Essentials of Medical Biochemistry Vol 1,2 by Mushtaq Ahmed

ORAL BIOLOGY & TOOTH MORPHOLOGY

- Oral Histology Development, Structure & Function by Richard Ten Cate
- Orban's Oral Histology & Embryology by Orban
- Tooth Morphology by Fuller
- Wheeler's Atlas of Tooth Form by Wheeler
- Oral Physiology by Levalle

PATHOLOGY & MICROBIOLOGY

- Robbins & Cotran Pathologic Basis of Disease

- Review of Medical Microbiology and Immunology by Levinson
- Textbook of Pathology by Walter & Israel

COMMUNITY & PREVENTIVE DENTISTRY

- Textbook of Preventive and Community Dentistry by S.S. Hiremath
- Community Oral Health by Cynthia Pine & Rebecca Harris