M. ISLAM DENTAL COLLEGE
MIDC
KNOWLEDGE HONOUR EXCELLENCE

STUDY GUIDE
BLOCK-V

BDS YEAR-2

BLOCK: V

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. **Definesthe 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-V

Sr. No.	MODULES	WEEKS
1-	Endocrinology	4
2-	Cariology II	3
3-	Community Dentistry & Public Health I	6
	Total	13 Weeks

ENDOCRINOLOGY

Specific Learning Objectives:

THEORY				
PHYSYIOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Introduction to Endocrinology	**Enlist the major endocrine glands and their hormones.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Classify hormones broadly based on chemical structure (peptide, steroid, amine).		**C1**	
	Differentiate between surface and intracellular hormone receptors.		**C3**	
	Explain the basic concept of feedback control in hormone secretion		**C2**	
Pituitary Hormones and Their Control by the Hypothalamus	**Describe the basic anatomy of pituitary gland and its relation to hypothalamus.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Identify the main hormones of the anterior and posterior pituitary and state their primary functions		**C3**	
	Outline the effects of growth hormone on growth and metabolism		**C2**	
	Explain the pathophysiology of growth-related disorders—dwarfism, gigantism, and acromegaly.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Describe the main functions of ADH (in water balance) and oxytocin (in labor and lactation).		**C2**	
Thyroid Gland	**Outline the basic functions of thyroid hormones.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE,**

				OSCE
	Discuss the salient clinical features of major thyroid disorders: hyperthyroidism, hypothyroidism, cretinism, and myxedema	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Calcium Regulating Hormones	**Outline the basic functions of parathyroid hormone, calcitonin, and vitamin D in calcium and bone metabolism.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Describe clinical conditions associated with calcium imbalance: hypoparathyroidism, hyperparathyroidism, rickets, osteomalacia, and osteoporosis.	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
Adrenal Glands	**Name the main adrenal cortical hormones and describe the physiological functions of cortisol, and aldosterone.**	**SGD (Tutorial Room)**	**C1**	**MCQs, OSPE, OSCE**
	Discuss the salient features of Cushing's syndrome and Addison's disease.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Pancreas	**Describe the main actions of insulin and glucagon on carbohydrate, protein, and fat metabolism**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Differentiate between Type I and Type II diabetes mellitus based on etiology and pathophysiology.	**SGD (Tutorial Room)**	**C3**	**MCQs, OSPE, OSCE**
	Discuss the general features and complications of diabetes mellitus.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

BIOCHEMISTRY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Synthesis of Thyroid and Parathyroid Hormones	**Outline the main steps of thyroid hormone synthesis (iodide uptake, iodination, coupling, storage, release)**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	State how parathyroid hormone is synthesized and its role in calcium regulation	**SGD (Tutorial Room)**	**C1**	**MCQs, OSPE, OSCE**
Synthesis of Insulin and	**Describe, in simple terms, how insulin and glucagon are produced in**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

Glucagon	**pancreatic islet cells**			
	Explain the clinical significance of C-peptide (marker of insulin secretion)	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Compare key features of Type 1 and Type 2 diabetes mellitus		**C3**	
	Describe the pathways of beta-oxidation and ketogenesis and explain their metabolic significance.		**C2**	
Vitamins	**Describe vitamin D and its active form, sources, RDA, biochemical roles, and deficiency manifestations.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Calcium	**Describe metabolism of calcium**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
PHARMACOLOGY & THERAPEUTICS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Antidiabetic drugs: Insulin	**State the major effects of insulin on body tissues**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Classify types of insulin (short, intermediate, long-acting)	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Describe the uses and common side effects of insulin	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Recognize newer agents (SGLT2 inhibitors, incretin mimetics, DPP-4 inhibitors) at a basic level	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
Oral antidiabetic drugs	**List the main groups of oral antidiabetic drugs (e.g., sulfonylureas, metformin, thiazolidinediones)**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Explain in simple terms how these drugs lower blood glucose	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Identify common side effects and contraindications	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
Thyroid hormones &	**Outline the synthesis and functions of thyroid hormones**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**

Antithyroid drugs	**State the drugs used in hypothyroidism**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Explain the mechanism of action of main antithyroid drugs	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
	Recognize the role of iodides and beta blockers in hyperthyroidism	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	List common toxicities of antithyroid drugs	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
Adrenal hormones-I	**Recall the main adrenal steroid hormones (cortisol, aldosterone)**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Recognize some synthetic glucocorticoids	**SGD (Tutorial Room)**	**C1**	**MCQs, OSPE, OSCE**
	Differentiate between short-, glucocorticoids.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
Adrenal hormones – II	**Describe the main pharmacological effects and therapeutic uses of glucocorticoids.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Outline their major adverse effects and precautions corticosteroids	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Explain the clinical implications and monitoring considerations in long-term steroid use	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Describe their pharmacokinetics, mechanism of action, pharmacological effects, uses, adverse effects, drug interactions and contraindications of Corticosteroid Antagonists	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

PATHOLOGY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
	Describe the etiology and main forms of hypothyroidism (cretinism, myxedema).	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

Hypothyroidism	**Identify oral manifestations such as mouth breathing, glossitis, salivary gland enlargement, macroglossia, and enamel hypoplasia.**	**SGD (Tutorial Room)**	**C3**	**MCQs, OSPE, OSCE**
Thyroid Function Tests	**Interpret basic thyroid function test results.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Differentiate between hyperthyroidism and hypothyroidism based on systemic features and oral manifestations.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
Hyperthyroidism	**Explain the major causes of hyperthyroidism (Graves' disease, toxic goiter).**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Recognize oral manifestations including mandibular osteoporosis, and connective tissue changes	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Classify types of thyroiditis	**SGD (Tutorial Room)**	**C1**	**MCQs, OSPE, OSCE**
	Describe Hashimoto thyroiditis, lymphocytic thyroiditis, granulomatous thyroiditis	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
Thyroid Neoplasms	**Classify benign and malignant thyroid neoplasms**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Explain key risk factors (e.g., radiation exposure) and relate their significance to dental practice	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Parathyroid Disorders	**Differentiate between hypo- and hyperparathyroidism (signs, symptoms, tests)**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**

	Explain the oral and dental manifestations of metabolic bone disorders by correlating systemic pathology with brown tumors, jaw bone loss, calcifications, and dental abnormalities.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

PRACTICALS / LAB WORK				
PATHOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Interpretation of Endocrine Function Tests	**Diagnose common endocrine diseases by analyzing provided clinical data, case histories, and laboratory reports.**	**Practical Lab**	**C3/P**	**OSPE**
	Interpret thyroid function test (TFT) results to support diagnosis of endocrine disorders.	**Practical Lab**	**C3/P**	**OSPE**
Thyroid Disorders: Clinical and Oral Correlations	**Correlate clinical signs, symptoms, and oral manifestations with hypothyroid and hyperthyroid states.**	**Practical Lab**	**C3/P**	**OSPE**
Parathyroid Disorders: Clinical and Oral Manifestations	**Identify and differentiate the oral and systemic manifestations of hyperparathyroidism and hypoparathyroidism based on clinical data and laboratory findings.**	**Practical Lab**	**C3/P**	**OSPE**

CARIOLOGY-II

Specific Learning Objectives:

THEORY				
ORAL BIOLOGY & TOOTH MORPHOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Morphology of Deciduous & Permanent Molars	**Describe the general considerations and detailed morphology of the labial, lingual, mesial, distal, occlusal aspects, and root structure of deciduous & permanent molars.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Enlist and compare key identification features of maxillary deciduous & permanent molars based on cusp pattern, crown outline, and root configuration.		**C1**	
	List and compare key identification features of deciduous & permanent mandibular molars based on cusp pattern, crown outline, and root configuration.		**C1**	
Pulp Morphology and Radiographic Correlation	**Explain and analyze the number, shape, and anatomical variations of pulp canals and pulp chambers in deciduous & permanent molars, with reference to radiographic appearances.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

SCIENCE OF DENTAL MATERIALS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Fundamental Requirements of Direct Restorative Materials	**Outline the essential requirements of direct filling restorative materials.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
Dental Amalgam — Composition, Manipulation & Safety	**Describe and relate the function of each component of dental amalgam alloy to its physical properties.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Explain the role of the mercury–alloy ratio and its effect on the setting reaction and long-term performance of amalgam restorations.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Correlate the manipulation parameters of amalgam with the mechanical and physical properties of the final restoration.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
	Evaluate the evidence on amalgam toxicity and justify its clinical safety in comparison with other environmental and dietary sources of mercury exposure.	**SGD (Tutorial Room)**	**C3**	**MCQs, OSPE, OSCE**
	Explain mercury hygiene guidelines and describe the protocols for safe amalgam waste disposal,	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Glass Ionomer Cements (GIC) — Chemistry, Properties & Clinical Use	**Describe the chemical composition and key properties of glass ionomer cements (GIC).**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
	Correlate the constituents of GIC with its physical and biological properties.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
	Explain the setting reaction, fluoride release ion exchange, and environmental interaction mechanisms of GIC.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Explain the rationale behind the development of resin-modified glass ionomers and describe their advantages over conventional glass	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

	ionomer cements.			
	Explain how modifications in GIC composition influence material properties and clinical performance.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Describe the composition, properties, and clinical indications of metal-reinforced glass ionomers (cermets).		**C2**	
Minimally Invasive Techniques & Clinical Protocols	**Describe briefly the principles and clinical applications of Atraumatic Restorative Treatment (ART) and the Sandwich Technique.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Dental Cements	**Define, classify, compare and evaluate dental cements as, liners, bases, and varnishes, and luting agents. Describe their roles in restorative dentistry.**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
	Classify dental cements according to composition and clinical use.		**C1**	
	Differentiate between temporary and permanent cements based on composition, strength, and clinical application.		**C3**	
	Explain the manipulation, setting characteristics, and clinical applications of major dental cements including zinc phosphate, GIC, calcium hydroxide, zinc polycarboxylate and ZOE.		**C2**	
Dental Polymers	**Describe the structure and classification of polymers relevant to dental applications.**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
	Explain the composition, properties, and uses of polymers		**C2**	**MCQs, OSPE, OSCE**

	used in dentistry.			
Polymerization	**Differentiate between the various types of polymerization reactions, explaining their chemistry and mechanisms.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
	Discuss the steps and factors influencing the polymerization reaction and its impact on material performance.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Denture base materials	**Classify denture base materials and explain the essential requirements for ideal denture base materials.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Explain the composition, manipulation, and processing of acrylic denture base polymers, and relate their properties to clinical performance.		**C2**	
	Enumerate and demonstrate stepwise procedures for manipulation, processing, finishing, and maintenance of acrylic dentures.		**C1**	
	Identify and describe alternative denture base materials with their advantages and limitations.		**C3**	
	Define and differentiate self-cured, light-cured, and heat-cured polymethyl methacrylate based on composition, polymerization, and clinical application.		**C3**	
	Identify and describe the physical stages of PMMA polymerization during cold-cure processing.		**C3**	
	Compare acrylic and porcelain teeth in terms of composition, bonding, esthetics, and wear resistance.		**C2**	

	Justify the selection of artificial teeth based on occlusal requirements, esthetics, and patient needs.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
Wrought Alloys	**Identify and describe wrought alloys used in 18rosthodontics applications. Correlate the rosthodontics uses.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
	Define annealing and describe its importance in modifying the properties of alloys after work hardening.		**C1**	

OPERATIVE DENTISTRY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Class I cavity preparation for amalgam	**Outline the principles and steps of class I amalgam cavity design.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
Lining and Pulpal Protection materials	**Describe briefly the special physiologic and structural characteristics of the pulp–dentin complex and explain how these influence the pulpal response to injury.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Explain the advantages, limitations, and appropriate uses of various lining and pulpal protection materials		**C2**	
	Identify and describe the clinical uses and key considerations associated with different materials used for pulpal protection		**C3**	
Amalgam Restoration in class I	**Describe the principles of restoration design for amalgam, including condensation, carving, finishing, and the factors influencing marginal integrity and longevity of the restoration.**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**

ORAL MEDICINE / DENTAL RADIOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Radiographic Caries Interpretation	**Assess and interpret radiographs to determine the depth and severity of carious lesions.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
COMMUNITY & PREVENTIVE DENTISTRY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Caries Risk Assessment	**Discuss and apply caries-risk assessment factors in clinical and community settings.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Explain the concept, components, and public health significance of the DMFT index.		**C2**	
	Interpret and record DMFT/DMFS and dft/dfs indices, explaining thresholds for high-risk classification.		**C2**	
	Analyze how systemic diseases and medications influence caries susceptibility and progression.		**C3**	
Preventive and Patient-Centered Strategies	**Explain and appraise patient-centered oral-hygiene and antimicrobial instructions delivered through the teach-back method.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Enlist appropriate fluoride regimens based on patient age and caries risk.		**C1**	
	Identify and apply remineralization agents and define maintenance intervals according to risk category.		**C3**	
Fluoride Use and Toxicity	**Explain causes and preventive strategies for dental fluorosis, including defluoridation techniques.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Recognize and manage signs and symptoms of fluoride toxicity in clinical scenarios.		**C1**	
	Critically appraise public-health ethics and community implications of water fluoridation programmers'.		**C3**	

Dietary and Behavioural Factors	**Discuss and design dietary and Behavioural modification plans to promote oral health.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Identify dietary risk groups and justify targeted caries-prevention interventions.		**C3**	
	Explain and analyze the effects of eating disorders on oral health; counsel patients on diet monitoring.		**C2**	
Epidemiology and Community-Level Prevention	**Describe the epidemiology of dental caries and relate it to social and behavioural health determinants.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
	Design and justify a community-level caries-prevention plan aligned with WHO Basic Package principles.		**C3**	**MCQs, OSPE, OSCE**
	Outline and interpret key cohort studies linking sugar consumption and caries incidence.		**C2**	**MCQs, OSPE, OSCE**
	Develop and propose oral-health promotion and prevention programmes for various population groups.		**C3**	**MCQs, OSPE, OSCE**
	Plan, implement, and evaluate a school-based sealant and fluoride-varnish programme with measurable KPIs and budget.		**C3**	**MCQs, OSPE, OSCE**

PSYCHIATRY & BEHAVIORAL SCIENCES

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Communication Skills for Preventive Dentistry (OARS and	**Explain the use of OARS micro-skills and their role in enhancing patient commitment to preventive oral health**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**

5A's Approach	**measures.**			
Behaviour-Change Frameworks in Patient Counseling	**Explain a behaviour-change framework and use it to identify barriers and propose a tailored oral health plan.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Anxiety Reduction Techniques in Preventive Dental Care	**Explain basic anxiety-reduction techniques and their application during risk assessment and fluoride therapy.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSCE**
Dietary Counseling and Fluoride Application	**Explain the 5A's dietary counselling approach and describe how to assess and document patient readiness for behaviour change.**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSCE**
Reflection and Self-Assessment in Preventive Communication	**Evaluate preventive communication encounters and identify strategies for improvement**	**SGD (Tutorial Room)**	**C3**	**MCQs, OSPE, OSCE**
PROSTHODONTICS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Retainers	**Enlist direct retainers used for acrylic and cast partial dentures.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**
	Differentiate between direct retainers of cast and acrylic partial denture.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
ORAL PATHOLOGY				
Topic	**Specific Learning Outcomes**	**Teaching**	**Levels**	**Assessment**

		Strategy	C/P/A	
Tooth Surface Loss and Enamel Defects	**Evaluate the etiology and contributing factors of non-carious cervical and enamel lesions, including erosion, abrasion, attrition, abfraction and molar–incisor hypomineralization (MIH).**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSCE**
	Identify and differentiate enamel and dentin defects (hypoplasia, amelogenesis imperfecta, fluorosis, MIH, erosion, abrasion, attrition, and developmental malformations) based on clinical and radiographic criteria.		**C3**	**MCQs, OSPE, OSCE**
	Differentiate developmental enamel defects from early carious lesions based on clinical and radiographic findings to prevent unnecessary intervention.		**C3**	**MCQs, OSPE, OSCE**
Pulpitis	**Define pulpitis and give its type. Differentiate between reversible & irreversible pulpitis.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSCE**

PRACTICALS / LAB WORK

ORAL BIOLOGY & TOOTH MORPHOLOGY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Morphology of Permanent Molars	**Identify and draw the outlines of all permanent molars (labial, lingual, mesial, distal, and occlusal aspects) on paper or models, labeling their key features, including oblique ridges and root anatomy**	**Practical lab**	**C3/P**	**OSPE**

Identification and Labeling of Molar Anatomical Features	**Accurately label all key morphological features (Cusps name, cusp ridges, marginal ridges, transverse ridges, triangular ridges, fossa, developmental depressions, contact points, name of roots/pulp canals, pits C grooves) on molar models**	**Practical lab**	**C3**	**OSPE**
Molars	**Carve anatomical models of molars using soap blocks/ wax blocks**	**Practical lab**	**C3**	**OSPE**
SCIENCE OF DENTAL MATERIALS				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Manipulation techniques for Dental Cements	**Manipulate GIC as luting/liner or base consistency.**	**Practical lab**		**OSPE**
	Mix Zinc phosphate dental cement as luting or base consistency.	**Practical lab**		**OSPE**
	Manipulate Zinc Oxide Eugenol dental cement	**Practical lab**		**OSPE**
	Mix Calcium hydroxide (two paste) dental cement as pulp capping agent	**Practical lab**		**OSPE**
	Construct the alphabets using 0.7 mm stainless steel wire to develop wire-bending dexterity and control.	**Practical lab**		**OSPE**
OPERATIVE DENTISTRY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Isolation	**Perform rubber dam application for isolation on typodont**	**Practical lab**	**C3/P**	**OSPE**

Class I Cavity Preparation	**Prepare a G.V. Black's Class I cavity on typodont for an amalgam**	**Practical lab**	**C3/P**	**OSPE**

	restoration (premolars & molars).			
Pulp protection	**Apply liners & bases in a prepared cavity**	**Practical lab**	**C3/P**	**OSPE**
Class I Restoration with amalgam	**Restore a prepared Class I cavity on a typodont with dental amalgam, following proper techniques of trituration, condensation, carving, and finishing.**	**Practical lab**	**C3/P**	**OSPE**

COMMUNITY & PREVENTIVE DENTISTRY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Oral Health Assessment and Risk Evaluation	**Conduct dietary history for caries risk assessment and demonstrate use of indices DMFT/DMFS and dft/dfs in oral health surveys.**	**Practical lab**	**C3/P**	**OSPE**

PROSTHODONTICS

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Preparation of Edentulous Cast	**Prepare an edentulous cast suitable for the fabrication of a complete denture.**	**Practical lab**	**C3/P**	**OSPE**

Wax-Up of Upper Base Plate	**Perform wax-up of the trial denture upper base plate ensuring proper extension and adaptation.**	**Practical lab**	**C3/P**	**OSPE**
Wax-Up of Lower Base Plate	**Perform wax-up of the trial denture lower base plate ensuring correct border extension and stability.**	**Practical lab**	**C3/P**	**OSPE**
Flasking of Upper and Lower Base Plates	**Demonstrate correct procedure for flasking trial denture upper and lower base plates prior to processing.**	**Practical lab**	**C3/P**	**OSPE**
Dewaxing of Upper and Lower Base Plates	**Perform dewaxing for trial denture upper and lower base plates, maintaining the accuracy of denture form.**	**Practical lab**	**C3/P**	**OSPE**
Packing, Curing, and Finishing of Base Plates	**Carry out packing, curing, and finishing of trial denture base plates, ensuring smooth and well-adapted surfaces.**	**Practical lab**	**C3/P**	**OSPE**

COMMUNITY DENTISTRY & PUBLIC HEALTH-I

Specific Learning Objectives:

THEORY				
COMMUNITY & PREVENTIVE DENTISTRY				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Introduction to Dental Public Health	**Describe the principles and scope of Dental Public Health and its role in promoting community oral health.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Concept of Oral Health and Disease	**Explain how individual dental care contributes to population-level oral health outcomes.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Oral Conditions as Public Health Problems	**Explain the criteria used to identify oral conditions that constitute public health problems.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Concepts of Health and Illness	**Compare professional and layperson perspectives of health, disease, and illness.**	**SGD (Tutorial Room)**	**C3**	**MCQs, OSPE, OSVE**
Epidemiological Concepts	**Explain the iceberg phenomenon and its relevance to subclinical oral diseases.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Risk Factors and Prevention Strategies	**Explain the common risk factor approach and apply it to preventive oral health planning.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Social Determinants of Health	**Describe the major patterns and social determinants contributing to oral**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

	health inequalities.			
Health Inequalities	Analyze socioeconomic, behavioral, and environmental causes of oral health inequalities.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
Prevention Approaches in Oral Health	Differentiate between high-risk, population, and common risk factor Prevention strategies.	SGD (Tutorial Room)	C3	MCQs, OSPE, OSVE
Planning Preventive Programs	Evaluate the suitability of preventive strategies for different oral health contexts.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
Screening in Dental Public Health	Explain the principles and applications of screening in oral health programs.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Screening Evaluation	Explain Wilson and Jungner criteria and evaluate their application in screening programs for oral diseases.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Screening Tests	List and explain the desirable properties of an ideal screening test.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Screening vs Diagnosis	Differentiate between screening and diagnostic tests based on purpose and methodology.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
Introduction to Epidemiology	Define epidemiology and explain its role in understanding oral disease distribution.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Epidemiology and Oral Health Services	Explain the applications of epidemiology in planning and evaluating dental services.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Epidemiological Study Designs	Classify epidemiological studies and describe their design and use in oral health research.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Study Planning and Design	Explain the fundamental framework of an epidemiological study applicable to dental public health	SGD (Tutorial Room)	C2	MCQs, OSPE, OSVE
Application of Epidemiology	Analyze how epidemiological findings guide preventive and clinical dental practices.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE

Research Validity	Define bias and confounding and explain their influence on study validity.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Research Methodology	Explain techniques such as randomization and blinding and their role in minimizing bias in research studies.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Integrated Disease Control Approaches	Compare epidemiological, screening, and clinical approaches to oral disease management.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
Application to Practice	Explain how epidemiological and screening principles can be applied in clinical and community dental care.	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Epidemiological Measurements	Differentiate and calculate prevalence and incidence rates to interpret oral health trends.	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE
Oral Health Surveys	Classify and describe different types of oral health surveys.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Explain the standardized steps involved in designing and conducting a simple oral health survey	LGIS (Lecture Hall 2)	C2	MCQs, OSPE, OSVE
Data Handling and Presentation	Describe data types, variables, statistical methods, sampling techniques, and present findings graphically.	SGD (Tutorial Room)	C2	MCQs, OSPE, OSVE
Research dynamics	Define range, variance, mean deviation, and standard deviation as measures of data	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
	Define probability and explain its application in dental research and data interpretation.	LGIS (Lecture Hall 2)	C1	MCQs, OSPE, OSVE
Hypothesis testing in research & Presentation of data	Interpret and calculate key descriptive measures of data,	LGIS (Lecture Hall 2)	C3	MCQs, OSPE, OSVE

	including central tendency and dispersion.			
Parametric and non-parametric tests	**Correlate standard deviation with mean and the concept of normal distribution**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
	Define and explain Normal distribution (Bell curve) and its characteristics.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Differentiate skewness and kurtosis types.	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Disease Causation	**Explain the cause-and-effect relationships underlying major diseases.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Oral Health Indices	**Define and classify oral health indices used in epidemiological studies.**	**LGIS (Lecture Hall 2)**	**C1**	**MCQs, OSPE, OSVE**
Periodontal Epidemiology	**Describe prevalence, distribution, and risk factors of periodontal diseases.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Etiological Triads	**Identify etiological factors and explain the triad of host, agent, and environment in periodontal disease.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Periodontal Disease Prevention	**Evaluate preventive strategies for reducing the incidence of periodontal disease.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**

Health Promotion	**Explain the key components and strategies for planning oral health promotion programs aimed at preventing periodontal disease.**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSVE**
Oral Cancer Etiology	**Explain etiological triads and contributing risk factors for oral cancer.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Oral Cancer Prevention	**Identify and implement preventive strategies for oral cancer in clinical settings.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
Community Prevention Programs	**Design community-based oral cancer prevention programs using public health approaches.**	**LGIS (Lecture Hall 2)**	**C3**	**MCQs, OSPE, OSVE**
PSYCHIATRY & BEHAVIORAL SCIENCES				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Psychological Growth and Development	**Describe psychological development stages.**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

	Explain how different personality traits influence patients' reactions to oral health challenges and stress in dental practice.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
Domestic Violence and Self-Harm Interventions	**Explain the concepts of grief and understand its stages in the context of dental care**	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Identify signs of complicated grief or emotional distress in patients undergoing dental or oral rehabilitation treatments.		**C3**	
	Explain strategies to communicate empathetically and effectively when supporting grieving patients or colleagues.		**C2**	
	Describe strategies to provide support to dental patients and their families.		**C2**	
	Identify common illness behaviors in dental patients and explain approaches to address them in clinical practice.		**C3**	
	Explain strategies to provide emotional and professional support to patients coping with loss or chronic illness.		**C2**	
Reassurance and Emotional Support	**Explain how to provide reassurance and emotional support while applying effective thinking, decision-making, and problem-solving skills in dental practice.**	**SGD (Tutorial Room)**	**C2**	**MCQs, OSPE, OSVE**
	Explain methods for providing effective reassurance to patients in a clinical setting.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**
	Explain the impact of effective reassurance on patient dental care and treatment outcomes.	**LGIS (Lecture Hall 2)**	**C2**	**MCQs, OSPE, OSVE**

PRACTICALS / LAB WORK

COMMUNITY & PREVENTIVE DENTISTRY

Topic	Specific Learning Outcomes	Teaching Strategy	Levels C/P/A	Assessment
Indices Recording (DMFT, CPI)	**Practice DMFT, CPI scoring on typodonts/models/case scenarios**	**Practical Lab**	**C3/P**	**OSPE**
	Learning how to record indices and simple epidemiological measures	**Practical Lab**	**C3/P**	**OSPE**

Basic Biostatistics	**Calculate mean, range, variance, and standard deviation using small datasets provided.**	**Practical Lab**	**C3/P**	**OSPE**
Skewness & Kurtosis	**Interpret sample histograms and differentiate normal, skewed, and kurtotic distributions.**	**Practical Lab**	**C3/P**	**OSPE**

Dental Screening	**Perform basic dental screening by applying the principles of screening, using the Wilson and Jungner criteria and features of ideal screening tests.**	**Practical Lab**	**C3/P**	**OSPE**
	Distinguish screening findings from diagnostic assessments.	**Practical Lab**	**C3/P**	**OSPE**
PSYCHIATRY & BEHAVIORAL SCIENCES				
Topic	**Specific Learning Outcomes**	**Teaching Strategy**	**Levels C/P/A**	**Assessment**
Psychological Growth and Development	**Identify key psychological development stages using patient scenarios and demonstrate how these stages influence communication and behavior during simulated dental interactions.**	**Practical Lab**	**C3/P**	**OSPE**
Domestic Reassurance and Emotional	**Recognize the stages of grief through role-play and case scenarios, and demonstrate appropriate communication and supportive responses when interacting with patients experiencing dental-related loss or emotional distress.**	**Practical Lab**	**C3/P**	**OSPE**
	Describe its impact on patient dental care.	**Practical Lab**	**C3/P**	**OSPE**

PRISME

Sr. No.	Domain	Learning Outcomes
1.	Professionalism	• Utilize effective communication techniques with dental patients while history taking. • Develop rapport with patients using rapport building steps. • Enhance emotional literacy in handling pediatric & adult dental patients.
2.	Research	• Identify referencing styles & use referencing software (Vancouver) • Submit structured literature review (portfolio task) • Design the basic framework of an epidemiological study relevant to dental public health. • Apply techniques such as randomization and blinding to minimize bias in studies
3.	Informatics	• Apply citation managers (Zotero/Mendeley/EndNote)
4.	Social Responsibility	• Develop empathy and cultural competence. • Manage patient anxiety during procedures • Explore psychological responses to dental-related illnesses. • Apply SPIKES protocol in delivering bad news. • Maintain professional boundaries with patients. • Manage patient expectations regarding dental procedures.
5.	Management &	• Collaborate effectively with

	Entrepreneurship	**dental laboratory technicians to ensure accurate fabrication and timely delivery of restorative and rehabilitative appliances.** • **Execute assigned tasks within time limits using planning strategies.**
6.	**Evidence Based Dentistry**	• **Apply basic behavior-change models (e.g., Health Belief Model) to design patient education.**

CFR-C

Sr. No.	CFR-C	Teaching Strategy	Levels C/P/A	Assessment
1.	History Taking	SGD (Skills Lab)	C3/P	OSPE/OSCE
2.	Tooth Charting and Numbering	SGD (Skills Lab)	C3/P	OSPE/OSCE
3.	Fluoride Application	SGD (Skills Lab)	C3/P	OSPE/OSCE
4.	Patient and Operator Positioning	SGD (Skills Lab)	C3/P	OSPE/OSCE
5.	Extraoral Examination	SGD (Skills Lab)	C3/P	OSPE/OSCE
6.	Intraoral Examination	SGD (Skills Lab)	C3/P	OSPE/OSCE
7.	Plaque Disclosure Technique	SGD (Skills Lab)	C3/P	OSPE/OSCE

ASSESSMENT POLICY

BLOCK-V								
Sr. No.	**Theory**			**Practical**				**Total**
1-	**Endocrinology**	**30 MCQs**	**120 Marks**	**Practical Clinical Examination**	**06 OSPE (9 marks each)**	**06 Stations x 9 = 54 Marks**	**120 Marks**	**300 Marks**
2-	**Cariology-II**	**51 MCQs**			**02 OSCE (9 marks each)**	**02 Stations x 9 = 18 Marks**		
3-	**Community Dentistry & Public Health I**	**39 MCQs**			**08 OSVE (01 station - PRISME) (6 marks each)**	**08 Stations x 6 = 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