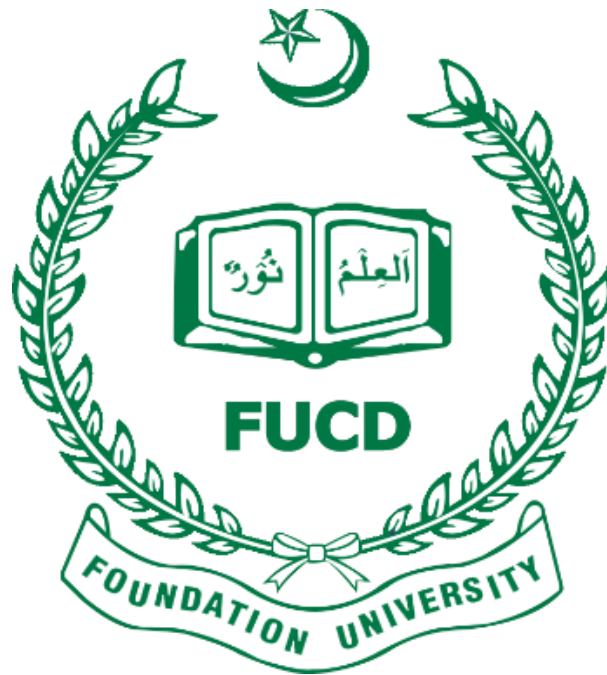


**FOUNDATION UNIVERSITY  
COLLEGE OF DENTISTRY  
ISLAMABAD**



**STUDY GUIDE  
PERIODONTOLOGY  
3<sup>RD</sup> YEAR BDS**

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# **DEPARTMENT OF PERIODONTOLOGY**

## **Mission**

1. Plan and provide learning resources required for quality education and innovation in order to meet local and global requirements.
2. Make research a significant activity involving faculty and students.
3. Impart awareness in oral health specially the gum diseases to the society
4. Promote collaboration with regional, national and international institutions fulfill the national obligation through participation and contribution to national health programs.

## **Introduction to Department**

The department of periodontology specializes in dealing with diseases of the periodontium i.e. the gingiva, periodontal ligament, cementum and alveolar bone. Patients with gingival and periodontal diseases and those with oral diseases are treated and followed up in the department of periodontology. It caters various patient categories in addition to routine out patients, geriatrics and hospital in patients are also managed.

## **Need to Include Periodontology in the Curriculum**

Numerous domestic and international studies have shown periodontal disease as being the leading cause of tooth loss followed by dental caries. In order to prepare our students for the challenges they will face during their practice as dentists, it is of utmost importance to give them an all-round and comprehensive knowledge of periodontology so that they can perform their professional duties to a high standard. Periodontology is intended to provide a sound and intensive knowledge about the basic principles of the etiology, progression and pathology of periodontal tissue as well as the diagnosis and management of periodontal disease.

## **Learning Outcomes of Course of Periodontology**

After completing the course of Periodontology, the student of 3<sup>rd</sup> Year BDS will be able to:

1. Demonstrate grasp of key principles and clinical practices in Periodontology.
2. Differentially diagnose various periodontal diseases.
3. Outline various treatment options for various periodontal diseases.
4. Apply the principles of periodontal therapy in a clinical setting.
5. Explain the limitations of non-surgical therapy and justify referral for specialist disease-management methods.

## **Teaching and Learning Methodologies**

Teaching and learning methods are primarily focused more on promoting active learning through active participation of the learner. Actively learning students take charge of their own learning, actively seeking guidance and performance feedback from tutors, and routinely conducting self-assessment of their own learning needs.

## **Teaching & Learning Modalities**

1. Large Group Interactive Sessions (LGIS)
2. Small Group Interactive Sessions (SGIS)
3. Self-Directed Learning (SDL)

Following teaching modalities may be used for clinical/ small group teaching:

1. Live patient demonstrations by supervisors
2. Video demonstrations
3. Case based learning/clinical scenario based learning
4. Formative supervised learning events in clinical settings such as;
  - a. Mini-CEX (Mini Clinical Evaluation Exercise)
  - b. DOPS (Direct Observation of Procedural Skills)
5. Role Plays
6. Students' presentations
7. Discussions
8. Peer learning

## 9. Projects/ Assignments

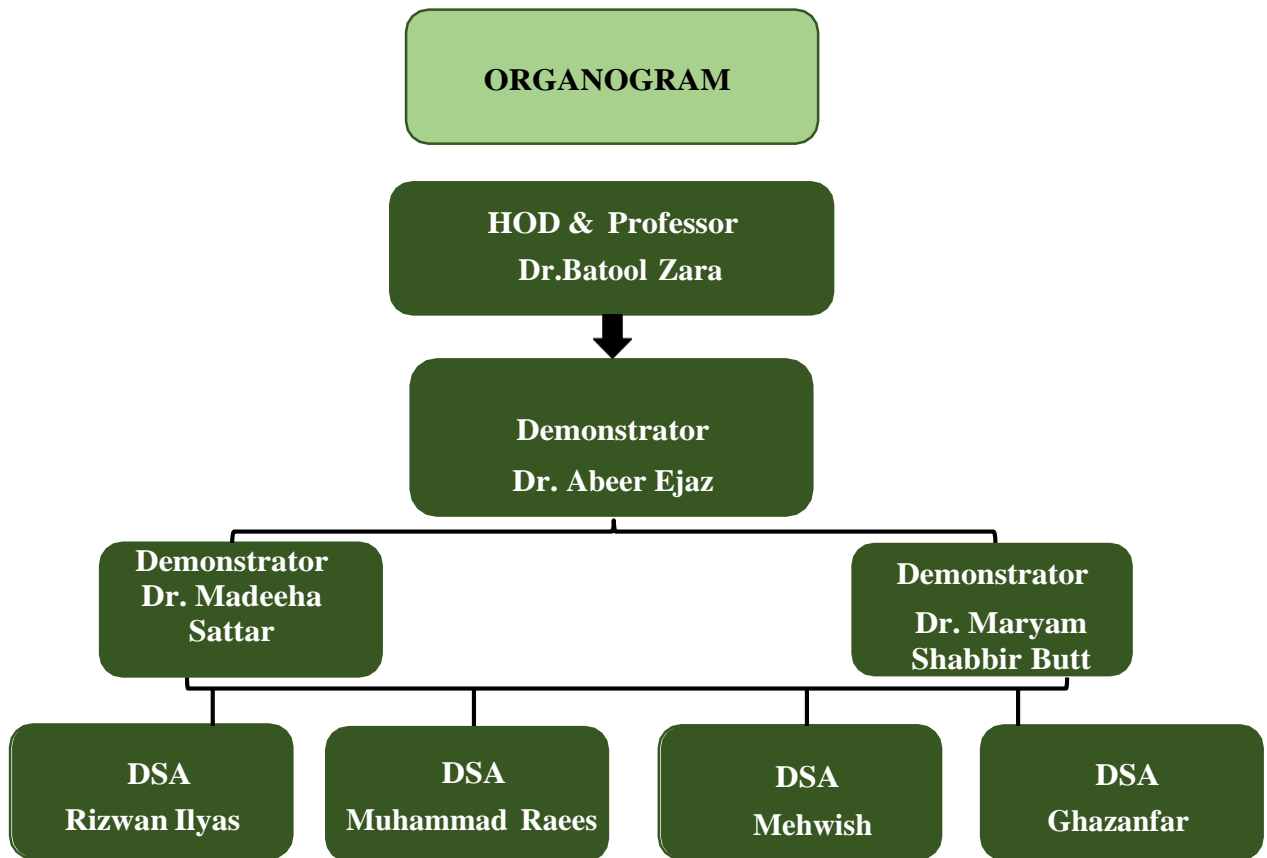
### **Recommended Reference Material**

1. Newman and Carranza's Clinical Periodontology, 13<sup>th</sup> Edition
2. Essentials of Clinical Periodontology and Periodontics by Shantipriya Reddy, 5<sup>th</sup> Edition
3. Manual of Clinical Periodontics by Francis G. Serio, 4<sup>th</sup> Edition
4. Fundamentals of Periodontal Instrumentation & Advanced Root Instrumentation by Jill Nield-gehrig, 8<sup>th</sup> Edition

### **Faculty of Department of Periodontology**

1. Dr. Batool Zara, BDS, MCPS (Periodontology), MPH, ACMEd - Head and Associate Professor
2. Demonstrator Dr. Abeer Ejaz
3. Demonstrator Dr. Madeeha Sattar
4. Demonstrator Dr. Maryam Shabbir Butt

## Organogram



## Detailed Course Content and Learning Objectives

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
1.	<b>Part 1 &amp; 2:  Introduction and Biologic Basis of Periodontology</b>	<b>Section I:  Normal Periodontium</b>	Anatomy, Structure, and Function of the Periodontium (Chapter 3)	<p>By the end of this component, students will be able to:</p> <ul style="list-style-type: none"> <li>• Define the basics of Periodontology</li> <li>• Explain the Gingiva (Clinical and Microscopic features), the tooth supporting structures               <ul style="list-style-type: none"> <li>○ Periodontal ligament (composition, periodontal fibers, cellular elements, ground substance, functions)</li> <li>○ Cementum (permeability, CEJ, CDJ, thickness, resorption and repair)</li> <li>○ Alveolar process (cells &amp; intercellular matrix, Socket wall, bone marrow, fenestration and dehiscence remodeling)</li> </ul> </li> <li>• Discuss the vascularization of the supporting structures</li> </ul>	<p>LGIS SGIS</p>	6	<p>MCQS SEQS VIVA</p> <p>OSCE</p>

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			Aging and the Periodontium (Chapter 4)	<ul style="list-style-type: none"> <li>Discuss the effects of aging on the periodontium</li> </ul>	LGIS SGIS	1	MCQS SEQS
		<b>Section II: Classification and Epidemiology of Periodontal Diseases</b>	Classification of Diseases and Conditions Affecting the Periodontium (Chapter 5)	<ul style="list-style-type: none"> <li>Describe various Gingival Diseases, Periodontitis, Medication-Related Osteonecrosis of the Jaw</li> <li>Describe Necrotizing Periodontal Diseases</li> <li>Describe Abscesses of the Periodontium</li> <li>Describe Periodontitis Associated with Endodontic Lesions</li> <li>Describe Developmental or Acquired Deformities and Conditions</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA
		<b>Section III: Etiology of Periodontal Disease</b>	Periodontal Disease Pathogenesis (Chapter 7)	<ul style="list-style-type: none"> <li>Explain histologic Stages of Gingivitis and Periodontitis</li> <li>Illustrate Immune Responses in Periodontal Pathogenesis</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA
			Biofilm and Periodontal Microbiology (Chapter 8)	<ul style="list-style-type: none"> <li>Define Structure and composition of dental Plaque</li> <li>Discuss Plaque as a biofilm</li> </ul>	LGIS SGIS	3	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>• Explain Plaque formation at the ultrastructure level</li> <li>• Describe Growth dynamics of dental plaque</li> <li>• Describe Physiologic properties of dental plaque</li> <li>• Describe Special bacterial behavior in biofilms</li> <li>• Demonstrate association of plaque microorganisms with periodontal diseases</li> <li>• Describe Microbial specificity of periodontal disease</li> <li>• Illustrate Microorganisms associated with specific periodontal diseases</li> </ul>			
			Smoking and Periodontal Disease (Chapter 12)	<ul style="list-style-type: none"> <li>• Describe effects of Smoking on the Prevalence and Severity of Periodontal Diseases</li> <li>• Explain Effects of Smoking on the Etiology and Pathogenesis of Periodontal Disease</li> <li>• Outline Effects of Smoking on the Response to Periodontal Therapy</li> <li>• Discuss Effects of Smoking Cessation on Periodontal Treatment Outcomes</li> </ul>	LGIS SGIS	2	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			The Role of Dental Calculus and Other Local Predisposing Factors (Chapter 13)	<ul style="list-style-type: none"> <li>Discuss calculus (Supragingival and subgingival, prevalence, composition, attachment to the tooth surface, formation, etiologic significance, Materia alba, food debris and dental stain)</li> <li>Demonstrate Other predisposing factors in the etiology of Dental calculus</li> </ul>	LGIS SGIS	3	MCQS SEQS VIVA  OSCE
		<b>Section IV: Relationship between Periodontal Disease and Systemic Health</b>	Influence of Systemic Conditions (Chapter 14)	<ul style="list-style-type: none"> <li>Describe endocrine Disorders and Hormonal Changes (Diabetes Mellitus, female sex hormones, corticosteroids hormones, hyperparathyroidism)</li> <li>Illustrate Hematologic Disorders and Immune Deficiencies (Anemia, Leukemia, thrombocytopenia, leukocyte disorders, antibody deficiency disorders)</li> <li>Describe Genetic Disorders</li> <li>Illustrate Stress and Psychosomatic Disorders (Psychosocial stress, depression, coping, stress induced immunosuppression, influence of stress on</li> </ul>	LGIS SGIS	3	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<p>periodontal therapy) Elaborate Nutritional Influences (Fat-soluble and water-soluble vitamin deficiency, protein deficiency)</p> <ul style="list-style-type: none"> <li>• Discuss the importance of Medications (Bisphosphonates) in the systemic conditions</li> <li>• Discuss Other Systemic Conditions (Hypophosphatasia, congenital heart disease, metal intoxication)</li> </ul>			
			Impact of Periodontal Infection on Systemic Health (Chapter 15)	<ul style="list-style-type: none"> <li>• Outline various pathobiology of Periodontitis</li> <li>• Discuss Focal Infection Theory Revisited</li> <li>• Elaborate Evidence-Based Clinical Practice</li> <li>• Describe Subgingival Environment as a Reservoir for Bacteria</li> <li>• Discuss Periodontal Disease and Mortality</li> <li>• Discuss Periodontal Disease, Coronary Heart Disease, and Atherosclerosis</li> <li>• Discuss Periodontal Disease and Stroke</li> </ul>	LGIS SGIS	3	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>• Discuss Periodontal Disease and Diabetes Mellitus</li> <li>• Discuss Periodontal Disease and Pregnancy Outcome</li> <li>• Elaborate Periodontal Disease and Chronic Obstructive Pulmonary Disease</li> <li>• Illustrate Periodontal Disease and Acute Respiratory Infections</li> <li>• Discuss Periodontal Disease and Asthma</li> </ul>			
		<b>Section V: Gingival Pathology</b>	Defense Mechanisms of the Gingiva (Chapter 16)	<ul style="list-style-type: none"> <li>• Describe sulcular fluid (Methods of collection, permeability of sulcular and junctional epithelia, amount, composition, cellular and humoral activity, clinical significance, drugs in gingival crevicular fluid)</li> <li>• Discuss Leukocytes in the dentogingival area</li> <li>• Describe Saliva (antibacterial factors, salivary antibodies, salivary buffer and coagulation factors, leukocytes, role in periodontal pathology)</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			Gingival Inflammation (Chapter 17)	<ul style="list-style-type: none"> <li>Differentiate between stage I Gingival Inflammation: The Initial Lesion, Stage II Gingival Inflammation: The Early Lesion, Stage III Gingival Inflammation: The Established Lesion and Stage IV Gingival Inflammation: The Advanced Lesion</li> </ul>	LGIS SGIS	1	MCQS SEQS OSCE VIVA
			Clinical Features of Gingivitis (Chapter 18)	<ul style="list-style-type: none"> <li>Compare course and duration of healthy and diseased gingiva</li> <li>Elaborate Clinical findings (Gingival bleeding on probing, gingival bleeding caused by local factors, gingival bleeding associated with systemic changes, colour changes in the gingiva, colour changes associated with systemic factors, changes in consistency of the gingiva, changes in the surface texture, changes in position of the gingiva, changes in gingival contour)</li> <li>Relate and implement the clinical findings of diseased gingiva while examining a patient</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA  OSCE   OSCE

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			Gingival Enlargement (Chapter 19)	<ul style="list-style-type: none"> <li>Classify and compare various types of Gingival Enlargement (Inflammatory enlargements, drug-induced gingival enlargements, idiopathic gingival enlargements, enlargement associated with systemic disease)</li> <li>Classify Other Forms of Gingival Enlargement (Neoplastic gingival enlargements, False enlargement)</li> </ul>	LGIS SGIS	2	MCQS SEQS OSCE VIVA
			Acute Gingival Infections (Chapter 20)	<ul style="list-style-type: none"> <li>Discuss necrotizing Ulcerative Gingivitis</li> <li>Discuss Primary Herpetic Gingivostomatitis</li> <li>Discuss Pericoronitis</li> <li>Differentiate different acute gingival infections</li> </ul>	LGIS SGIS	1	MCQS SEQS OSCE VIVA
			Gingival Disease in Childhood (Chapter 21)	<ul style="list-style-type: none"> <li>Explain the periodontium of the Primary Dentition</li> <li>Describe Periodontal Changes Associated with Normal Development</li> <li>Discuss Gingival Diseases of Childhood</li> <li>Describe Periodontal Diseases of Childhood</li> </ul>	LGIS SGIS	2	MCQs SEQs VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>Describe Gingival Manifestation of Systemic Disease in Children</li> <li>Discuss Oral Mucosa in Childhood Diseases</li> <li>Discuss Therapeutic Considerations for Pediatric Patients</li> </ul>			
			Desquamative Gingivitis (Chapter 22)	<ul style="list-style-type: none"> <li>Discuss chronic Desquamative Gingivitis</li> <li>Outline a Systematic Approach in the diagnosis of Desquamative Gingivitis:</li> <li>Differentiate Diseases that can Manifest as Desquamative Gingivitis</li> </ul>	LGIS SGIS	2	MCQs SEQs OSCE VIVA  OSCE VIVA
		<b>Section VI: Periodontal Pathology</b>	The Periodontal Pocket (Chapter 23)	<ul style="list-style-type: none"> <li>Classify periodontal pocket (clinical Features, pathogenesis histopathology)</li> <li>Discuss Periodontal Disease Activity in relation to periodontal pocket</li> <li>Demonstrate Pulp Changes Associated with Periodontal Pockets</li> <li>Describe Relationship of Attachment Loss and Bone Loss to Pocket Depth</li> </ul>	LGIS SGIS	2	MCQS SEQS OSCE VIVA  OSCE VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>• Discuss Area Between Base of Pocket and Alveolar Bone</li> <li>• Describe Relationship of Pocket to Bone</li> <li>• Discuss Periodontal Abscess</li> <li>• Describe Lateral Periodontal Cyst</li> </ul>			MCQS SEQS
			Bone Loss and Patterns of Bone Destruction (Chapter 24)	<ul style="list-style-type: none"> <li>• Discuss bone Destruction Caused by the Extension of Gingival Inflammation</li> <li>• Explain Bone Destruction Caused by Trauma from Occlusion</li> <li>• Describe Bone Destruction Caused by Systemic Disorders</li> <li>• Summarize Factors Determining Bone Morphology in Periodontal Disease</li> <li>• Classify and correlate clinically the Bone Destruction Patterns in Periodontal Disease</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA  OSCE
			Periodontal Response to External Forces (Chapter 25)	<ul style="list-style-type: none"> <li>• Discuss adaptive capacity of the periodontium to Occlusal Forces</li> <li>• Explain and demonstrate Trauma from Occlusion</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>• Differentiate Stages of Tissue Response to Increased Occlusal Forces</li> <li>• Describe Effects of Insufficient Occlusal Force</li> <li>• Describe Reversibility of Traumatic Lesions</li> <li>• Discuss Effects of Excessive Occlusal Forces on Dental Pulp</li> <li>• Explain Relationship Between Plaque-Induced Periodontal Diseases and Trauma from Occlusion</li> <li>• Explain Pathologic Tooth Migration</li> </ul>			
			Chronic Periodontitis (Chapter 27)	<ul style="list-style-type: none"> <li>• Discuss and Identify clinical features of chronic periodontitis patient (General Characteristics, disease distribution, disease severity, symptoms, disease progression, prevalence)</li> <li>• Classify Risk Factors for Disease (Prior history of periodontitis, local factors, systemic factors, behavioral</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA OSCE

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				and environmental factors, genetic factors)			
			Aggressive Periodontitis (Chapter 28)	<ul style="list-style-type: none"> <li>Classify different forms of aggressive periodontitis.</li> <li>Compare and Identify the clinical characteristics of different subtypes of aggressive periodontitis</li> <li>Describe Pathobiology and Risk Factors</li> <li>Discuss Therapeutic Considerations in Aggressive Periodontitis Patients</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA OSCE
			Necrotizing Ulcerative Periodontitis (NUP) (Chapter 29)	<ul style="list-style-type: none"> <li>Discuss clinical features, microscopic findings of the NUP patient</li> <li>Classify Patients With HIV/AIDS in relation to NUP</li> <li>Describe Etiology of NUP</li> <li>Explain Malnutrition in relation to NUP</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA
			Pathology and Management of Periodontal Problems in Patients with HIV Infection	<ul style="list-style-type: none"> <li>Classify the disease process and explain staging of such patients</li> <li>Explain Oral and Periodontal Manifestations of HIV Infection</li> </ul>	LGIS SGIS	2	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			(Chapter 30)	<ul style="list-style-type: none"> <li>Describe Dental Treatment Complications</li> <li>Describe Gingival and Periodontal Diseases in line with HIV infection</li> <li>Discuss Periodontal Treatment Protocol</li> </ul>			
	<b>Part 3: Clinical Periodontics</b>	<b>Section I: Diagnosis, Prognosis, and Treatment Plan</b>	Levels of Clinical Significance (Chapter 31)	<ul style="list-style-type: none"> <li>Describe tangible versus intangible Benefits</li> <li>Differentiate Four Levels of Clinical Significance</li> </ul>	LGIS SGIS	1	MCQS SEQS
			Periodontal Examination and Diagnosis (Chapter 32)	<ul style="list-style-type: none"> <li>Perform Overall Appraisal of the Patient,</li> <li>Outline Health and dental History</li> <li>Perform Photographic Documentation</li> <li>Perform Clinical Examination</li> <li>Perform Tactile Periodontal Examination</li> <li>Demonstrate Periodontal Charting</li> <li>Examine the Teeth and Implants</li> <li>Perform Radiographic Examination</li> <li>Compare Laboratory Aids to Clinical Diagnosis</li> <li>Perform Periodontal Diagnosis</li> </ul>	LGIS SGIS	3	OSCE VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>Recommend Biofilm Control methods and Patient Education</li> </ul>			
			Radiographic Aids in the Diagnosis of Periodontal Disease (Chapter 33)	<ul style="list-style-type: none"> <li>Differentiate normal Interdental Bone in a radiograph</li> <li>Perform Radiographic Techniques</li> <li>Show type of bone loss on a radiograph in Periodontal Disease</li> <li>Interpret Digital Intraoral Radiography</li> <li>Report Advanced Imaging Modalities</li> </ul>	LGIS SGIS	2	OSCE
			Clinical Risk Assessment (Chapter 34)	<ul style="list-style-type: none"> <li>Categorize Risk Elements for Periodontal Disease (Risk factors, Risk Determinants/ Background)</li> <li>Explain Characteristics, Risk Indicators, Risk Markers/ Predictors</li> </ul>	LGIS SGIS	1	MCQS SEQS
			Determination of Prognosis (Chapter 35)	<ul style="list-style-type: none"> <li>Classify Types of Prognosis</li> <li>Discuss Factors in Determination of Prognosis</li> <li>Outline Prognosis of Specific Periodontal Diseases</li> </ul>	LGIS SGIS	1	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			The Treatment Plan (Chapter 36)	<ul style="list-style-type: none"> <li>• Discuss overall Treatment Plan</li> <li>• Justify Sequence of Therapy (Periodontal Evaluation, Nonsurgical Therapy, Periodontal Reevaluation, Surgical Therapy, Periodontal Maintenance Therapy)</li> <li>• Explain the Treatment Plan to the Patient</li> </ul>	LGIS SGIS	1	MCQS SEQS VIVA
		<b>Section II: Management of Patients With Special Needs</b>	Periodontal Treatment of Medically Compromised Patients (Chapter 39)	<ul style="list-style-type: none"> <li>• Discuss management of patient with Cardiovascular Diseases</li> <li>• Discuss management of patient with Endocrine Disorders</li> <li>• Discuss management of patient with Hemorrhagic Disorders</li> <li>• Discuss management of patient with Renal Diseases</li> <li>• Discuss management of patient with Liver Diseases</li> <li>• Discuss management of patient with Pulmonary Diseases</li> <li>• Discuss management of patient with Medications and Cancer Therapies</li> <li>• Discuss management of patient with Prosthetic Joint Replacement</li> <li>• Discuss management of patient with Pregnancy</li> </ul>	LGIS SGIS	2	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>Discuss management of patient with Infectious Diseases</li> </ul>			
			Periodontal Therapy in the Female Patient (Chapter 41)	<ul style="list-style-type: none"> <li>Discuss management of patient with Puberty</li> <li>Discuss management of patient with Menses</li> <li>Discuss management of patient with Pregnancy</li> <li>Discuss management of patient with Oral Contraceptives</li> <li>Discuss management of patient with Menopause</li> </ul>	LGIS SGIS	2	MCQS SEQS
			Treatment of Aggressive and Atypical Forms of Periodontitis (Chapter 43)	<ul style="list-style-type: none"> <li>Discuss management of Aggressive Periodontitis</li> <li>Explain Periodontitis Refractory to Treatment</li> <li>Demonstrate management of Necrotizing Ulcerative Periodontitis</li> </ul>	LGIS SGIS	1	MCQS SEQS VIVA
		<b>Section III: Diagnosis and Treatment of Periodontal Emergencies</b>	Treatment of Acute Gingival Disease (Chapter 44)	<ul style="list-style-type: none"> <li>Discuss and perform management of Necrotizing Ulcerative Gingivitis, Primary Herpetic Gingivostomatitis and Pericoronitis patient</li> </ul>	LGIS SGIS	1	MCQS SEQS VIVA OSCE
			Treatment of Periodontal Abscess (Chapter 45)	<ul style="list-style-type: none"> <li>Classify different types of abscess</li> <li>Explain and justify different Treatment Approaches</li> </ul>	LGIS SGIS	2	MCQS SEQS OSCE VIVA





S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>▪ <i>Gingival Massage</i></li> <li>▪ <i>Oral Irrigation</i></li> <li>▪ <i>Caries Control</i></li> <li>▪ <i>Chemical Plaque Biofilm Control with Oral Rinses</i></li> <li>▪ <i>Disclosing Agents</i></li> <li>▪ <i>Frequency of Plaque Biofilm Removal</i></li> </ul> <p><i>Patient Motivation and Education</i></p>			
			Breath Malodour (Chapter 49)	<ul style="list-style-type: none"> <li>• Describe semantics</li> <li>• Discuss Etiology</li> <li>• Describe Fundamentals of Malodor Detection</li> <li>• Classify Malodor</li> <li>• Discuss Treatment of Oral Malodor</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA
			Scaling and Root Planning (Chapter 50)	<ul style="list-style-type: none"> <li>• Classify Periodontal Instruments</li> <li>• Describe General Principles of Instrumentation</li> <li>• Discuss Principles of Scaling and Root Planning</li> <li>• Explain techniques of instrument sharpening</li> </ul>	LGIS SGIS	3	MCQS SEQS OSCE VIVA
			Sonic and Ultrasonic Instrumentation and Irrigation	<ul style="list-style-type: none"> <li>• Describe the following mechanisms: <ul style="list-style-type: none"> <li>▪ <i>Power-Driven Instrument</i></li> </ul> </li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			(Chapter 51)	<ul style="list-style-type: none"> <li>▪ <i>Mechanism of Action of Power Scalers</i></li> <li>▪ <i>Type and Benefit of Power Instruments</i></li> <li>▪ <i>Clinical Outcomes of Power-Driven Instruments</i></li> <li>▪ <i>Principles of Instrumentation</i></li> <li>▪ <i>Home and Self-Applied Irrigation</i></li> <li>▪ <i>Mechanism of Action of Irrigation</i></li> <li>▪ <i>Clinical Outcomes of Irrigation</i></li> <li>▪ <i>Individuals with Special Considerations</i></li> <li>▪ <i>Action of a Tip with Filaments</i></li> <li>▪ <i>Cleaning Around an Implant</i></li> </ul>			
			Systemic Anti-infective Therapy for Periodontal Diseases (Chapter 52)	<ul style="list-style-type: none"> <li>• Define: <ul style="list-style-type: none"> <li>▪ <i>Systemic Administration of Antibiotics</i></li> <li>▪ <i>Serial and Combination Antibiotic Therapy</i></li> </ul> </li> </ul>	LGIS SGIS	1	MCQS SEQS VIVA
			Host Modulation (Chapter 54)	<ul style="list-style-type: none"> <li>• Elaborate Systemically Administered Agents</li> <li>• Differentiate Locally Administered Agents</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>Specify Host Modulation and Comprehensive Periodontal Management</li> <li>Elaborate Sub-antimicrobial–Dose Doxycycline</li> <li>Describe Emerging Host Modulatory Therapies</li> <li>Describe Host Modulation Factors in Systemic Disorders</li> </ul>			
		<b>Section V: Surgical Treatment</b>	Phase II Periodontal Therapy (Chapter 57)	<ul style="list-style-type: none"> <li>Discuss objectives of the Surgical Phases in the following: <ul style="list-style-type: none"> <li><i>Pocket Elimination Versus Pocket Maintenance</i></li> <li><i>Reevaluation After Phase I Therapy</i></li> <li><i>Critical Zones in Pocket Surgery</i></li> <li><i>Indications for Periodontal Surgery</i></li> <li><i>Methods of Pocket Therapy</i></li> </ul> </li> </ul>	LGIS SGIS	2	MCQS SEQS OSCE VIVA
			Periodontal and Peri-implant Surgical Anatomy (Chapter 58)	<ul style="list-style-type: none"> <li>Explain surgical anatomy of Mandible, Maxilla, Exostoses, Muscles, surgical Anatomic Spaces</li> </ul>	LGIS SGIS	2	SEQS
			General Principles of	<ul style="list-style-type: none"> <li>Discuss outpatient Surgery</li> </ul>	LGIS SGIS	2	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			Periodontal Surgery (Chapter 59)	<ul style="list-style-type: none"> <li>Specify surgical anatomy of Periodontal Surgery</li> <li>Classify Surgical Instruments</li> </ul>			OSCE VIVA
			Periodontal Surgical Therapy (Chapter 60)	<ul style="list-style-type: none"> <li>Describe the rationale for Periodontal Access Surgery</li> <li>Explain Fundamentals of Periodontal Surgery</li> <li>Describe different Periodontal Surgical Techniques</li> </ul>	LGIS SGIS	2	MCQS SEQS
			Treatment of Gingival Enlargement (Chapter 61)	<ul style="list-style-type: none"> <li>Discuss treatment of chronic Inflammatory Enlargement</li> <li>Explain treatment of Periodontal and Gingival Abscesses</li> <li>Discuss treatment of Drug-Induced Gingival Enlargement, Leukemic Gingival Enlargement, and Gingival Enlargement During Pregnancy</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA
			Resective Osseous Surgery (ROS) (Chapter 62)	<ul style="list-style-type: none"> <li>Define and describe Resective Osseous Technique</li> <li>Differentiate Normal Alveolar Bone Morphology</li> <li>Explain Factors in Selection of Resective Osseous Surgery</li> <li>Elaborate Osseous Resection Technique</li> </ul>	LGIS SGIS	2	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>• Elaborate Flap Placement and Closure</li> <li>• Discuss Postoperative Management of patient after ROS</li> </ul>			
			Periodontal Regeneration and Reconstructive Surgery (Chapter 63)	<ul style="list-style-type: none"> <li>• Describe Healing of periodontal wound</li> <li>• Describe different Reconstructive Surgical Techniques</li> <li>• Explain Factors That Influence Therapeutic Success</li> <li>• Illustrate Future Directions for Periodontal Regeneration</li> </ul>	LGIS SGIS	2	MCQS SEQS
			Furcation: Involvement and Treatment (Chapter 64)	<ul style="list-style-type: none"> <li>• Describe etiologic Factors in furcation defect</li> <li>• Identify Furcation Defects</li> <li>• Explain Local Anatomic Factors</li> <li>• Describe Anatomy of the Bony Lesions</li> <li>• Illustrate Indices of Furcation Involvement</li> <li>• Describe Nonsurgical and Surgical Therapy for furcation defects</li> </ul>	LGIS SGIS	2	MCQS SEQS OSCE VIVA
			Periodontal Plastic and Aesthetic Surgery	<ul style="list-style-type: none"> <li>• Discuss different Causes of Marginal Tissue Recession</li> <li>• Describe Factors That Affect Surgical Outcome</li> </ul>	LGIS SGIS	2	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
			(Chapter 65)	<ul style="list-style-type: none"> <li>• Describe Techniques to Increase Attached Gingiva</li> <li>• Describe Techniques to Deepen the Vestibule</li> <li>• Describe Techniques to Remove the Frenum</li> <li>• Describe Techniques to Improve Aesthetics</li> <li>• Define Tissue Engineering</li> <li>• Outline Criteria for Selection of Techniques in Periodontal Surgery</li> </ul>			
		<b>Section VI: Periodontal- Restorative Interrelation ships</b>	Preparation of the Periodontium for Restorative Dentistry (Chapter 69)	<ul style="list-style-type: none"> <li>• Describe Sequence of Treatment in Preparing Periodontium for Restorative Dentistry</li> </ul>	LGIS SGIS	1	MCQS SEQS

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
		<b>Section VII: Supportive Care and Results of Periodontal Treatment</b>	Supportive Periodontal Treatment (Chapter 72)	<ul style="list-style-type: none"> <li>Describe Rationale for Supportive Periodontal Treatment</li> <li>Describe Maintenance Program</li> <li>Classify Post-treatment Patients and Risk Assessment</li> <li>Explain Referral of Patients to the Periodontist</li> </ul>	LGIS SGIS	1	MCQS SEQS VIVA
	<b>Part 4: Oral Implantology</b>	<b>Section I: Biology, Diagnosis, Biomechanics, and Treatment Plan</b>	Peri-implant Anatomy, Biology, and Function (Chapter 74)	<ul style="list-style-type: none"> <li>Describe implant geometry (Macro-design)</li> <li>Explain Implant surface characteristics (Micro-design)</li> <li>Differentiate between hard and soft tissue interfaces</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA  OSCE
			Clinical Evaluation of the Implant Patient (Chapter 75)	<ul style="list-style-type: none"> <li>Discuss case types and indications</li> <li>Describe Pre-treatment evaluation</li> <li>Describe Risk factors and contraindications</li> <li>Describe Post-treatment evaluation</li> </ul>	LGIS SGIS	2	MCQS SEQS
			Diagnostic Imaging for the Implant Patient (Chapter 76)	<ul style="list-style-type: none"> <li>Describe standard projections (Periapical, Occlusal, OPG, Lateral Cephalometric radiographs)</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>Describe Cross-sectional imaging (conventional x-ray tomography, CT, Cone Beam Computed Tomography)</li> </ul>			
		<b>Section II: Surgical Procedures</b>	Basic Implant Surgical Procedures (Chapter 78)	<ul style="list-style-type: none"> <li>Discuss implant selection and design consideration</li> <li>Describe General principles of implant surgery</li> <li>Describe Two-stage submerged implant placement</li> <li>Describe One-stage non-submerged implant placement</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA
			Localized Bone Augmentation and Implant Site Development (Chapter 79)	<ul style="list-style-type: none"> <li>Describe guided bone regeneration</li> <li>Describe Localized ridge augmentation</li> <li>Describe Management of extractions</li> </ul>	LGIS SGIS	2	MCQS SEQS
		<b>Section III: Complication</b>	Implant Related Complications and Failures (Chapter 85)	<ul style="list-style-type: none"> <li>Define Implant</li> <li>Classify Types and Prevalence of Implant Complications</li> <li>Classify Types of Dental Implants Surgical Complications</li> <li>Elaborate Biologic Complications</li> </ul>	LGIS SGIS	2	MCQS SEQS VIVA

S.No	Parts	Sections	Course content	Learning objectives	Instructional strategy	No. of lectures	Assessment method
				<ul style="list-style-type: none"> <li>Describe management of Prosthetic or Mechanical Complications</li> <li>Describe management of Aesthetic and Phonetic Complications</li> </ul>			
		<b>Section IV: Supportive Care and Results of Implant Treatment</b>	Supportive Implant Treatment (Chapter 86)	<ul style="list-style-type: none"> <li>Describe the rationale for Supportive Implant Treatment</li> <li>Assess Peri-implant Health</li> <li>Describe Implant Maintenance</li> <li>Illustrate Treatment of Peri-implant Diseases</li> <li>Illustrate rationale for immediate implant treatment</li> </ul>	LGIS SGIS	2	MCQS SEQS

## CLINICAL ROTATION

A brief overview of the learning in the clinical settings is given. Refer to logbook for details.

NO.	<b>LEARNING OBJECTIVE</b> <i>Student should be able to:</i>	<b>LEARNING MODALITY</b>
1.	Perform Clinical Examination	Chairside Demo.
2.	Administer local anesthesia using appropriate technique.	Clinical Demo. DOPS
3.	Counsel patient before, during and after treatment.	Mini-CEX
4.	Administer periodontal treatment.	Chairside learning OMP DOPS
5.	Complete portfolio including 1. History 2. Diagnosis 3. Extra oral examination 4. Intra oral examination 5. Relevant diagnostic investigations 6. Differential diagnosis 7. Complete treatment planning 8. Management 9. Follow up	Chairside learning Patient demonstration SGD

No.	<b>Clinical Area Activities – refer to Logbook for further details.</b>
1.	Performing clinical activities <ul style="list-style-type: none"> <li>▪ Case allotment</li> <li>▪ Patient history and assessment</li> <li>▪ Cross infection control,</li> <li>▪ Clinical procedure quota</li> <li>▪ Prescription writing</li> </ul>
2.	Recording in logbook and register <ul style="list-style-type: none"> <li>▪ Log of performed patient history and periodontal procedures</li> <li>▪ Patient history form</li> <li>▪ Clinical examination form</li> <li>▪ Periodontal disease monitoring chart</li> <li>▪ Supervised, checked by senior registrar and registrars, countersigned by HOD</li> </ul>
3.	Clinical Lectures: <ul style="list-style-type: none"> <li>▪ Delivered by Senior faculty and HOD</li> </ul>
4.	Assessment: <ul style="list-style-type: none"> <li>▪ Viva, Ward Test, Assignment</li> </ul>

## **ASSESSMENT STRUCTURE & MARKS DISTRIBUTION**

### **FORMATIVE/ INTERNAL ASSESSMENT**

The internal assessment in Periodontology comprises of 10% (20 out of 200 marks)

<b>S.No.</b>	<b>DISTRIBUTION</b>	<b>THEORY (10)</b>	<b>PRACTICAL (10)</b>
1.	Attendance	2.5 (lectures)	2.5 (wards)
2.	Student log book	-	2.5
3.	First term test	2.5	-
4.	Second term test	2.5	-
5.	End of rotation examination	-	2.5
6.	Send-up/pre-annual examination	2.5	2.5
	<b>GRAND TOTAL</b>	<b>10</b>	<b>10</b>

### **SUMMATIVE ASSESSMENT STRUCTURE & MARKS DISTRIBUTION**

- 1. Total Marks of Periodontology = 200 (180+20)**
- 2. Theory Marks Distribution:**
  - Total marks of MCQs = 40
  - Total marks of SEQs = 50
  - Internal assessment = 10
  - Total marks of theory = 100 (90+10)
- 3. Practical Marks distribution:**
  - Total marks of OSPE = 40
  - Total marks of Viva = 50 (25 marks internal examiner, 25 marks external examiner)
  - Internal assessment = 10
  - Total marks of Practical = 100 (90+10)
- 4. Pass Marks = 50%**

Each candidate must pass in both the written & practical examination individually.

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