

**DR.M.G.R EDUCATIONAL & RESEARCH INSTITUTE UNIVERSITY**  
**DEPARTMENT OF PERIODONTOLOGY**

<b>Subject Code:</b>	<b>Subject Name : PERIODONTOLOGY</b>					<b>T / L/ ETL</b>	<b>L</b>	<b>T / S.Lr</b>	<b>P/ R</b>			
	Prerequisite:					T						
L : Lecture T : Tutorial SLr : Supervised Learning P : Project R : Research C: Credits T/L/ETL : Theory/Lab/Embedded Theory and Lab.												
<b>OBJECTIVE:</b>												
<input type="checkbox"/> Diagnose the patients periodontal problem, plan and perform appropriate periodontal treatment <input type="checkbox"/> Competent to educate and motivate the patient <input type="checkbox"/> Competent to perform thorough oral prophylaxis, subgingival scaling, root planning and minor periodontal surgical procedures. <input type="checkbox"/> Give proper post treatment instructions and do periodic recall and evaluation <input type="checkbox"/> Familiar with concepts of osseointegration and basic surgical aspects of implantology												
<b>SKILLS:</b>												
The student shall acquire the skill to perform dental scaling ,diagnostic tests of periodontal diseases; to use the instruments for periodontal therapy and maintenance of the same.												
<b>COURSE OUTCOMES (COs) : ( 3- 5)</b>												
<b>CO1</b>	The student shall develop attitude to impart the preventive measures namely, the prevention of Periodontal diseases and prevention of the progress of the disease.											
<b>CO2</b>	The student shall also develop and Attitude to perform the treatment with full aseptic precautions;											
<b>CO3</b>	Shall develop an attitude to prevent iatrogenic diseases;											
<b>CO4</b>	To conserve the tooth to the maximum possible time by maintaining periodontal Health and to refer the patients who require specialist's care.											
<b>Mapping of Course Outcomes with Program Outcomes (POs)</b>												
<b>Cos/Pos</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
CO1	H	H	L	H	L	L	M	M	M	M	H	H
CO2	H	H	L	H	L	L	M	M	M	M	H	H
CO3	H	H	L	H	L	L	M	M	M	M	H	H
CO4	H	H	L	H	L	L	M	M	M	M	H	H
<b>COs /PSOs</b>	<b>PSO1</b>		<b>PSO2</b>		<b>PSO3</b>		<b>PSO4</b>					
CO1	H		H		M		M					
CO2	H		H		M		M					
CO3	H		H		M		M					
CO4	H		H		M		M					
<b>H/M/L indicates Strength of Correlation H- High, M- Medium, L-Low</b>												
<b>Category</b>	Basic Sciences	Medical and Allied Health Science	Humanities and Social Sciences	Program Core	Program Electives	Open Electives	Practical / Project	Internships / Technical Skill	Soft Skills			
				✓								
Approval												

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### DEPARTMENT OF PERIODONTOLOGY

**UNIT1**-Introduction: Definition of Periodontology, Periodontics, Periodontia, Brief historical background-Scope of Periodontics

**UNIT 2.** Development of perio-dontal tissues, micro-structural anatomy and biology of periodontal tissues in detail Gingiva-Junctional epithelium in detail, Epithelial-Mesenchymal-interaction,Periodontal, ligament Cementum, Alveolar bone.

**UNIT3.** Defensive mechanisms in the oral cavity: Role of-Epithelium,Gingival fluid, Saliva-other defensive mechanisms in the oral environment.

**UNIT 4**-Age changes in periodontal structures-significance in Geriatric dentistry-Age changes in teeth and periodontal structures-association with periodontal disease.

**UNIT5**-Classification of periodontal diseases-Need for classification, Scientific basis of classification-Classification of gingival and periodontal diseases as described in World Workshop1989-Gingivitis-Plaque associated,ANUG,steroid hormone influenced-Medication influenced, Desquamative gingivitis-gingivitis as in nutritional deficiency, bacterial – viral infections etc-Periodontitis-Adult periodontitis, Rapidly progressive periodontitis A&B-Juvenile-periodontitis-Prepubertal periodontitis-Refractory periodontitis.

**UNIT 6.** Gingival diseases Localized and generalized gingivitis, Papillary, marginal-diffuse gingivitis-Etiology, pathogenesis, clinical signs, symptoms-management of Plaque associated gingivitis-Systemically aggravated gingivitis-drug-ANUG-Desquamative gingivitis-Gingivitis associated with-lichen planus, pemphigoid, pemphigus, and othervesiculobullouslesions-Allergic gingivitis-Infective gingivitis-Herpetic, bacterial and candidial-Pericoronitis-Gingival enlargement -classification and differential-diagnosis.

**UNIT 7** Epidemiology-periodontal diseases-Definition of index, incidence-prevalence,epidemiology,endemic,- epidemic, and pandemic-Classification of indices(Irreversible and reversible-Deficiencies of earlier indices used in Periodontics-Detailed understanding of Silness & Loe Plaque Index-Loe&Silness Gingival Index, CPITN & CPI. - Prevalence of periodontal diseases in India and other countries-Public health significance.

**UNIT 8.** Extension of inflammation-gingiva-Mechanism of spread of inflammation from gingival area to-deeper periodontal structures Factors that modify the spread.

**UNIT 9.** Pocket Definition, signs and symptoms, classification, pathogenesis, histopathology, root surface changes and contents of the pocket

**UNIT 10.** Etiology - Dental Plaque-Definition, New concept of biofilm-Types, composition, bacterial colonization, growth,maturation &disclosing agents- Role of dental plaque in periodontal diseases- Plaque microorganisms in detail and bacteria associated with periodontal diseases- Plaque retentive factors- Materia alba- Food debris- Calculus-Definition- Types, composition, attachment, theories of formation- Role of calculus in disease Food Impaction-Definition- Types, Etiology- Hirschfelds' classification- Signs ,symptoms &sequelae of treatment Trauma from occlusion- Definition, Types- Histopathological changes- Role in periodontal disease- Measures of management in brief-Habits- Their periodontal significance- Bruxism &parafunctional habits, tongue thrusting ,lip biting, occupational habits-Iatrogenic Factors-Conservative Dentistry-Prosthodontics- relationships of margins to the periodontium,-Gingival protection theory, muscle action theory& theory of access to oral hygiene-Orthodontics Systemic diseases- Diabetes, sex hormones, nutrition(Vit.C &proteins)- AIDS & periodontium- Hemorrhagic diseases, Leukemia, clotting factor disorders,PMN disorders

**UNIT 11.** Risk factors Definition. Risk factors for periodontal diseases 1

**UNIT 12.** Host response - Mechanism of initiation and progression of periodontal diseases- Basic concepts about cells, Mast cells, neutrophils,-macrophages, lymphocytes, immunoglobulins, complement system, immune mechanisms & cytokines in brief- Stages in gingivitis-Initial, early, established & advanced- Periodontal disease activity, continuous paradigm, random burst & asynchronous multiple burst hypothesis.

**UNIT 13.** Periodontitis - Etiology ,histopathology, clinical signs & symptoms-diagnosis and treatment of adult periodontitis- Periodontal abscess; definition, classification-pathogenesis, differential diagnosis and treatment- Furcation involvement, Glickmans' classification,prognosis and management- Rapidly progressive periodontitis- Juvenile periodontitis: Localized and generalized- Post-juvenile periodontitis- Periodontitis associated with systemic diseases- Refractory periodontitis

**UNIT 14.** Diagnosis - Routine procedures, methods of probing, types of probes,(According to case history)- Halitosis: Etiology and treatment. Mention advanced diagnostic aids and their role in brief.

**UNIT 15.** Prognosis - Definition, types, purpose and factors to be taken into consideration

**UNIT 16.** Treatment plan - Factors to be considered.

**UNIT 17.** Periodontal therapy A. General principles of periodontal therapy. Phase I,II, III, IV therapy-Definition of periodontal regeneration, repair, new attachment and reattachment Plaque control-Mechanical tooth brushes, interdental cleaning aids-dentifrices-Chemical; classification and mechanism of action- pocket irrigation.

**UNIT 18.** Pocket eradication procedures- Scaling and root planing:- Indications- Aims & objectives- Healing following root planning- Hand instruments, sonic, ultrasonic & piezo-electric scalers- Curettage & present concepts- Definition- Indications- Aims & objectives- Procedures & healing response- Flap surgery- Definition- Types of flaps, Design of flaps, papilla preservation- Indications & contraindications- Armamentarium- Surgical procedure & healing response

**UNIT 19.** Osseous Surgery Osseous defects in periodontal disease- Definition- Classification- Surgery: resective, additive osseous surgery- Healing responses- Other regenerative procedures; root conditioning- Guided tissue regeneration.

**UNIT 20.** Mucogingival surgery & periodontal plastic surgeries-Definition-Mucogingival problems: etiology, classification of gingival-recession (P.D.Miller Jr. and Sullivan and Atkins)-Indications & objectives-Gingival-extension procedures: lateral pedicle graft,-frenectomy, frenotomy-Crown lengthening procedures-Periodontal microsurgery in brief.

**UNIT 21.** Splints - Periodontal splints- Purpose & classification- Principles of splinting

**UNIT 22.** Hypersensitivity Causes, Theories & management 1

**UNIT 23.** Implants Definition, types, scope & biomaterials used-Periodontal considerations: such as implant-bone interface-implant-gingiva interface, implant failure, peri-implantitis-management.

**UNIT 24.** Maintenance phase-(SPT)- Aims, objectives, and principles- Importance- Procedures- Maintenance of implants.

**UNIT 25.** Pharmaco-therapy - Periodontal dressings- Antibiotics & anti-inflammatory drugs- Local drug delivery systems

**UNIT 26.** Periodontal management of medically compromised patients Topics concerning periodontal management of medically compromised patients

**UNIT 27.** Inter-disciplinary care - Pulpo-periodontal involvement- Routes of spread of infection- Simons' classification- Management

**UNIT 28.** Systemic effects of periodontal diseases in brief Cardiovascular diseases, Low birth weight babies etc.

**UNIT 29.** Infection control protocol Sterilization and various aseptic procedures

**UNIT 30.** Ethics

**TOTAL NUMBER OF HOURS: Lecture-80,clinicals-107.**

**RECOMMENDED BOOKS:**

1. Glickman's Clinical Periodontology — Carranza
2. Essentials of Periodontology and periodontics- Torquil MacPhee
3. Contemporary periodontics- Cohen
4. Periodontal therapy- Goldman
5. Orban's periodontics- Orban
6. Oral Health Survey- W.H.O.
7. Preventive Periodontics- Young and Stiffler
8. Public Health Dentistry- Slack
9. Advanced Periodontal Disease- John Prichard
10. Preventive Dentistry- Forrest
11. Clinical Periodontology- Jan Lindhe
12. Periodontics- Baer & Morris.

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