



NUMS

NATIONAL UNIVERSITY
OF MEDICAL SCIENCES



3rd Year

BDS Study Guide

National University of Medical Sciences

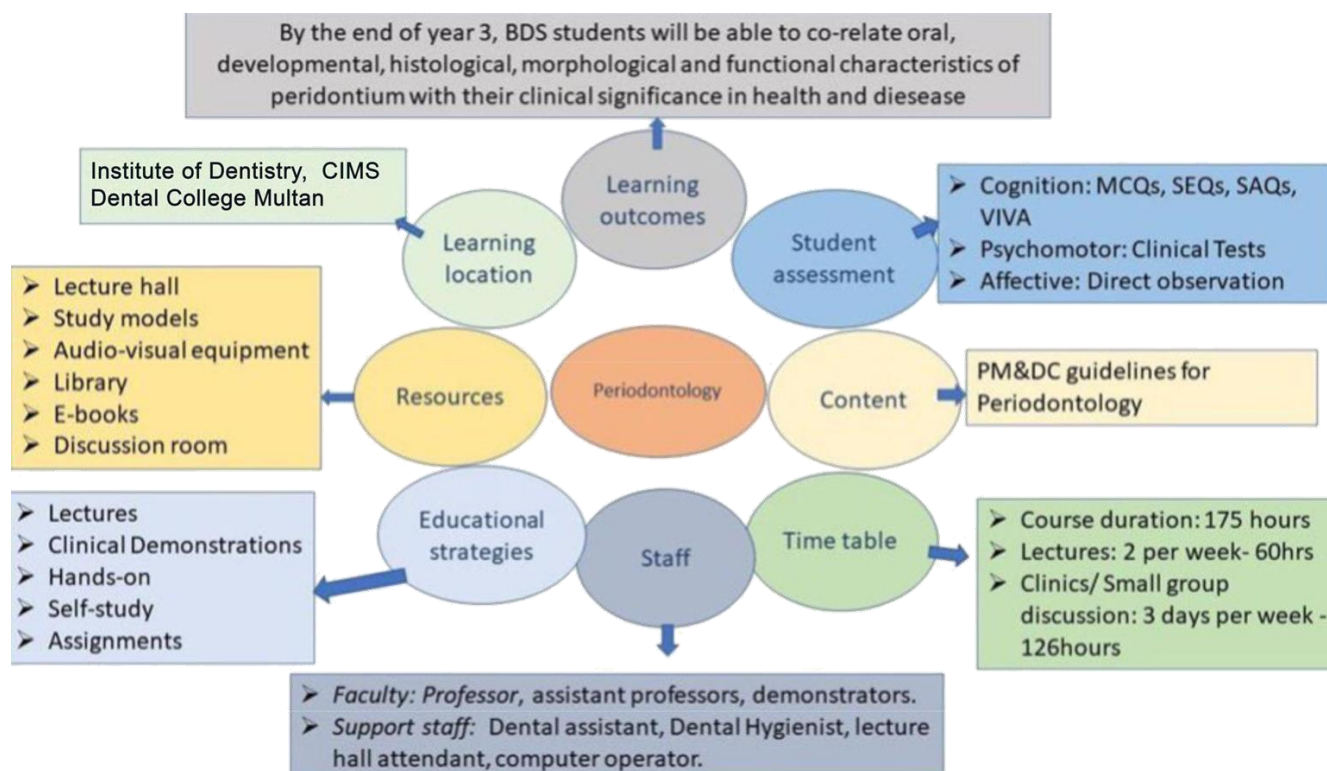
Introduction to Periodontology

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INTRODUCTION TO PERIODONTOLOGY

Periodontology is the specialty of dentistry that studies supporting structures of teeth, as well as diseases and conditions that affect them. The supporting tissues are known as the periodontium, which includes the gingiva (gums), alveolar bone, cementum, and the periodontal ligament.

CURRICULAR MAP OF PERIODONTOLOGY



Resources

- a. Teaching resources
- b. Infrastructure resources

Teaching resources

Sr. #.	Faculty Name	Department as per PM & DC certificate	Qualification
1	Dr. Marij Hameed	Associate professor	BDS, MSc
2	Dr. Muhammad Zain ul Abedin	Demonstrator	BDS
3	Dr. Pervisha Zainab	Demonstrator	BDS
4	Dr. Umme Farwa	Demonstrator	BDS

Infrastructure resources

Sr. #.	Infrastructure Resources	Quantity
1	Operating Halls	• 1
2	Dental Units • Periodontology clinic	• 13
3	Dental Stools • Periodontology	• 13
5	Reception	1
6	Mini Library	1
7	Staff Room	1
8	Dental stores	1

Supporting staff

Serial No.	Name	Designation
1	Saira Fayaz	Dental Surgery Assistant

Teaching and Learning Strategies

Multiple educational methods will be used comprising of self-study, interactive lectures, group discussions, practical, and manual dexterity skill sessions.

(i) Methods for achieving cognitive objectives

- Interactive lectures using audio visual aids on power point presentation
- Group discussions in form of large group and small group
- Collaborative learning
- Self-study and reading from learning resources

(ii) Methods for achieving psychomotor objectives

- Theoretical information provided in lectures
- Clinical demonstrations provided by teaching faculty on models and patients
- Supervised practice on patients

(iii) Methods for achieving affective objectives

- Interaction with peers, group members, teachers, support staff etc.
- Group discussions (small and large)
- Oral presentations by students

Learning Methodologies

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

- Interactive lectures
- Clinics/ Practical
- Skill sessions
- Small group discussions
- Self-directed learning
- Assignments
- Oral presentations by students

Interactive lectures

In large group, the lecturer introduces a topic which explains the underlying phenomenon through questions, pictures, exercise, etc. Students are actively involved in the learning process.

Small group discussions

This format helps students to clarify concepts and acquire skills and attitudes. Students exchange opinions and apply knowledge gained from lectures and self-study. The facilitator's role is to ask probing questions, summarize, or rephrase to help clarify concepts.

Practical

In practical sessions students observe demonstrations from faculty members on proper instrument use and handling both inside and outside the patient's mouth. The students are retrained in diagnosing and treating a periodontal disease as per protocols set by the department.

Skill session

Students are required to practice suturing techniques on inanimate materials.

Self- directed learning

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

Assignments

Students are given written formative assignments on designated topics. Revision of the topics already covered by anatomy and physiology departments are given to students as oral presentations.

Oral presentations by students

Students are assigned topics during revision session to enhance their communication skills and group learning.

CURRICULUM IMPLEMENTATION

Curriculum implementation refers to putting into practice the official document including course content, objectives, learning and teaching strategies. Implementation process helps the learner to achieve knowledge, skills and attitudes required of the learning tasks. Learners are a pertinent component of the implementation process. Implementation occurs when the learner achieves the intended learning experiences, knowledge, ideas, skills and attitudes which are aimed to make the learner an effective part of the society. Curriculum implementation also refers to the stage at which curriculum is put into effect. There has to be an implementing agent as well. Teacher is an important part of this process and implementation of the curriculum is the way the teacher selects and utilizes various components of the curriculum. Implementation occurs when the teacher's formulated course content, teacher's personality and teaching and learning environment interact with the learners. Therefore, curriculum implementation is how the officially planned course of study is translated and reflected by the teacher into schemes of work, lesson plans, syllabus and resources are effectively transferred to the learners. Curriculum implementation can be affected by certain factors such as teachers, learners, learning environment, resource materials and facilities, culture and ideology, instructional supervision and assessments.

Personnel involved in teaching and facilitation

(i) Lectures delivery by:

Dr Marij Hameed

(ii) DEMONSTRATORS for practical and small group discussion sessions:

Dr Pervisha Zainab

Dr Muhammad Zain ul

Abedin

Dr Umme Farwa

(iii) Support staff: 1 (1

(Senior Dental Surgery

Assistant)

Time frame

Course duration:

- Lectures: 36 weeks
- Clinical rotations: 9 weeks per rotation

Lectures
:

- Tuesday (9:00 to 10:00am)
- Thursday: (8:00 to 9:00 am)

Practical/ clinical visits:

- Tuesday and Thursday (10:00 to 3:00 pm)
- Friday (10:00 to 3:00 pm) with 1 pm to 2 pm Prayer break

Course Outline

Section - 1 The Normal Peridontium, Classification and Epidemiology of periodontaldisease.

This section deals with the basic anatomy and physiology of the peridontium and gives an overview of how to classify patients into different categories of periodontal disease. The incidence, distribution, and possible control of periodontal diseases and other factors relating to health are also included in this topic.

Section – 2 Etiology of periodontal disease

This subject includes the role of microbiology in periodontal disease and its interaction with the host and its response in return. The influence of iatrogenic and systemic factors an dental deposits and how they contribute towards periodontal disease is also covered here.

Section – 3 Periodontal pathogenesis.

This area deals with the pathogenesis of periodontal pocket, bone loss and explains the detail of the phases of gingival inflammation.

Section – 4 Periodontal diseases.

This domain discusses in detail the diagnosis, pathogenesis, management and complications of various periodontal diseases including autoimmune and acute periodontal conditions.

Section – 5 Periodontal Examination, Diagnosis and Therapy

This subject deals with the details of history taking, periodontal investigations and diagnosis. The instruments, procedures and chemotherapeutic agents used to manage the periodontal diseases non surgically are also covered under this topic.

Section – 6 Surgical Periodontology

This subject deals with the details of periodontal surgery, which includes the armamentarium, preparation, techniques, and postoperative healing of curettage, gingivectomy, gingivoplasty and various flap and bone surgeries. It also includes regenerative and periodontal plastic and esthetic surgeries.

Section – 7 Dental Implants

This topic involves the basic knowledge of dental implants for students at an undergraduate level teaching then the basic introduction, rationale , treatment planning and complications of implants.

Section – 8 Supportive Periodontal Care

This subject deals with the explaining management of patient with periodontal disease post surgical and non-surgical treatment and maintaining their oral hygiene. Details of patient referral are also discussed is also covered under this domain.

Topic and Exam Weightage

Topic	Weightage (%age)
The Normal Peridontium and Classification and Epidemiology of Periodontal diseases	11
Etiology of Periodontal Disease	11
Periodontal Pathogenesis	11
Periodontal Disease	21
Periodontal Examination, Diagnosis and Therapy	11
Surgical Periodontology	11
Dental Implants	11
Supportive Periodontal Care	13

Topic	Lecture Hour Weightage (hrs)	Clinical Hour Weightage (hrs)
The Normal Peridontium and Classification and Epidemiology of Periodontal diseases	6.6	14
Etiology of Periodontal Disease	6.6	14
Periodontal Pathogenesis	6.6	14
Periodontal Disease	12.6	26.5
Periodontal Examination, Diagnosis and Therapy	6.6	14
Surgical Periodontology	6.6	14
Dental Implants	6.6	14
Supportive Periodontal Care	7.8	16.5
Total	60	127

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
Periodontology				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs
1. THE NORMAL PERIDONTIUM, CLASSIFICATION AND EPIDEMIOLOGY OF PERIODONTAL DISEASES						X	3	1
Explain development of the tooth supporting apparatus	Dr. Marij Hameed	C	Interactive lecture/small group discussion					
Explain anatomy of Peridontium		C	Interactive lecture/small group discussion					
Correlate the microscopic features and clinical features of the peridontium		C	Interactive lecture/small group discussion					
Understand the nerve and vascular supply of the peridontium		C	Interactive lecture/small group discussion					
Explain effects of Aging on the normal peridontium		C	Interactive lecture					
Explain gingival diseases (plaque and non plaque induced gingivitis and periodontitis along with classificaton		CPA	Interactive lecture/case-based discussion					
Discuss developmental and acquired deformities along with mucogingival deformities around teeth		C	Interactive lecture/small group discussion					

Discuss the definition of epidemiology.		C	Interactive lecture/small group discussion					
Explain how to diagnose periodontal diseases and difference between chronic and aggressive periodontitis		C	Interactive lecture/small group discussion					
ETIOLOGY OF PERIODONTAL DISEASE						X	3	1
PERIODONTAL MICROBIOLOGY								
Discuss diversity of intraoral surfaces for bacterial adhesion and structure and composition of dental plaque	Dr.Marij Hameed	C	Interactive lecture/case-based discussion					
Discuss plaque formation at ultrastructural level and growth dynamics of plaque		C	Interactive lecture/ small group discussion					
Discuss different properties of dental plaque and association of plaque micro organisms with periodontal diseases		C	Interactive lecture/small group discussion					
Explain the role of calculus and other predisposing factors		C	Interactive lecture/case-based discussion					
HOST RESPONSE AND HOST BACTERIAL INTERACTIONS								

• Identification of cells of immunity and inflammation.	Dr.Marij Hameed	C	Interactive lecture/ small group discussion					
• Discuss mechanism of migration and functioning of leucocytes		C	Interactive lecture/ small group discussion					
• Discuss different microbial aspects of microbial host interaction and microbiology and immunology in periodontal diseases		C	Interactive lecture/ small group discussion					
• Discuss toll like receptors and innate immunity response		C	Interactive lecture/ small group discussion					
• Discuss similarities between periodontal diseases and other chronic inflammatory diseases		C	Interactive lecture/case-based discussion					
• Discuss host response and potential targets for host modulation		C	Interactive lecture/ small group discussion					
• Explain host modulatory therapy		C	Interactive lecture/ small group discussion					
SYSTEMIC FACTORS								
• Treatment of medically compromised patients	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					

Influence of systemic disorders and stress on peridontium	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
IATROGENIC AND OTHER FACTORS								
Overview of factors predisposing to periodontal disease (local and systemic)	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
DENTAL DEPOSITS								
Explain origin, composition, formation and mode of attachment of calculus		C	Interactive lecture/ small group discussion/ Clinics					
Classify and differentiate supra and sub-gingival calculus	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Explain theories of mineralization		C	Interactive lecture/ small group discussion / Clinics					
Clinical significance of calculus		CPA	Interactive lecture/case-based discussion/ Clinics					
Dental Stains, Materia Alba, Dental pellicle		CPA	Interactive lecture/case-based discussion/ Clinics					
PERIODONTAL PATHOGENESIS						X	3	1

GINGIVAL INFLAMMATION								
Explain in detail the 4 stages of gingival Inflammation	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
PERIODONTAL POCKET								
Define and Classify Periodontal Pocket	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Explain the clinical features, pathogenesis and pocket contents		CPA	Interactive lecture/ small group discussion / Clinics					
Histopathology of Soft and hard tissue wall of the periodontal pocket		C	Interactive lecture/ small group discussion / Clinics					
Treatment options for periodontal pocket		CPA	Interactive lecture/case-based discussion/ Clinics					
BONE LOSS AND PATTERNS OF BONE LOSS								
Bone destruction caused by extension of gingival inflammation	Dr.Marij Hameed	CPA	Interactive lecture/ small group discussion / Clinics					
Bone destruction caused by trauma from occlusion			Interactive lecture/ small group discussion / Clinics					
Bone destruction caused by systemic disorders			Interactive lecture/ small group					

			discussion / Clinics					
			Interactive lecture/ small group discussion / Clinics					
- Factors determining bone morphology in periodontal disease - Bone destruction patterns in periodontal disease								
PERIODONTAL DISEASES						X	4	2
GINGIVITIS								
Explain clinical findings of gingivitis including gingival bleeding on probing, color changes, changes in consistency and surface texture	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Explain changes in position of gingiva and changes in gingival contour		CPA	Interactive lecture/case-based discussion/ Clinics					
Role of Saliva		CPA	Interactive lecture/ small group discussion / Clinics					
Explain the composition, formation and methods of collection of GCF		CPA	Interactive lecture/ small group discussion / Clinics					

Clinical significance of Sulcular fluid		CPA	Interactive lecture/case-based discussion/ Clinics					
ACUTE PERIODONTAL CONDITIONS								
Explain the clinical features, microbiology involved, diagnosis, treatment and complications of pericoronitits	Dr.Marij Hameed	C	Interactive lecture/case-based discussion/ Clinics					
Explain the clinical features, microbiology involved, diagnosis and treatment of Primary Herpetic Gingivostomatitis		C	Interactive lecture/case-based discussion					
Explain the etiology, clinical features, microbiology involved, diagnosis and treatment of Necrotizing ulcerative Gingivitis		C	Interactive lecture/case-based discussion					
DESQUAMATIVE GINGIVITIS								
Diagnosis of Desquamative gingivitis	Dr.Marij Hameed		Interactive lecture/case-based					

Diagnose, differentiate and treat Lichen Planus, Pemphigoid, Pemphigus Vulgaris, Chronic Ulcerative Gingivitis, Linear IgA disease, Lupus erythematoses, Dermatitis Herpetiformis and Erythema Multiforme .		C	discussion					
Drug Eruptions		C						
Conditions mimicking Desquamative Gingivitis		C	Interactive lecture/case-based discussion					
		C	Interactive lecture/case-based discussion					
GINGIVAL ENLARGEMENTS								
Classify Gingival Enlargements.	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					

			Interactive lecture/ small group discussion / Clinics					
Explain the pathophysiology of different types of gingival enlargements		C	Interactive lecture/ small group discussion / Clinics					
Explain the microscopic and histopathological features.		C	Interactive lecture/ small group discussion / Clinics					
Determine a treatment plan for all types of Gingival Enlargements		CPA	Interactive lecture/case-based discussion/ Clinics					
Management		CPA	Interactive lecture/case-based discussion/ Clinics					
CHRONIC PERIODONTITIS								
Explain and Correlate Clinical and histopathological features of Chronic Periodontitis	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Explain the disease distribution		CPA	Interactive lecture/case-based discussion/ Clinics					
Management of Chronic Periodontitis		CPA	Interactive lecture/case-based discussion/ Clinics					
Risk factors for disease		CPA	Interactive lecture/case-based discussion/					

			Clinics					
AGGRESSIVE PERIODONTITIS								
Clinical features, general characteristics, disease distribution, background and management of aggressive periodontitis	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Risk factors for disease		C	Interactive lecture/case-based discussion/ Clinics					
NECROTISING ULCERATIVE GINGIVITIS AND PERIODONTITIS								
Etiology, clinical features, microbiology involved, diagnosis and treatment of Necrotizing Ulcerative Gingivitis	Dr.Marij Hameed	C	Interactive lecture/case-based discussion					
Etiology, clinical features, microbiology involved, diagnosis and treatment of Necrotizing Ulcerative Periodontitis			Interactive lecture/case-based discussion					
TRAUMA FROM OCCLUSION								
Acute and Chronic Trauma	Dr.Marij Hameed	C	Interactive lecture/case-based discussion					

Primary and Secondary Trauma		C	Interactive lecture/case-based discussion					
Consequences of trauma			Interactive lecture/case-based discussion					
Tissue Response of trauma			Interactive lecture/ small group discussion					
Diagnosis of Occlusal trauma		C	Interactive lecture/case-based discussion					
Occlusal adjustment		C	Interactive lecture/case-based discussion					
Splinting		C	Interactive lecture/case-based discussion					
PERIODONTAL MANIFESTATION OF SYSTEMIC DISEASES								
Different systemic diseases are discussed with reference to their periodontal manifestations	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
PERIODONTAL EXAMINATION DIAGNOSIS AND THERAPY						X	3	1
PERIODONTAL EXAMINATION								
History taking and Diagnosis	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					

Periodontal screening and complete examination of oral cavity.		CPA	Interactive lecture/case-based discussion/ Clinics					
PERIODONTAL DIAGNOSIS								
First and second visit of patient	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Differential diagnosis along with laboratory aids to clinical diagnosis		CPA	Interactive lecture/case-based discussion/ Clinics					
TREATMENT PLANNING AND PLAQUE CONTROL								
Phases of periodontal treatment , retreatment of patient in case of reoccurrence	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Mechanical control of dental plaque		CPA	Interactive lecture/case-based discussion/ Clinics					
Motivation , education and instruction	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Interdental cleaning		CPA	Interactive lecture/case-based discussion/ Clinics					
Scaling and root planning with advantages and disadvantages		CPA	Interactive lecture/case-based discussion/ Clinics/					

			Skills session					
Chemical control of dental plaque		CPA	Interactive lecture/case-based discussion/ Clinics					
Chemotherapeutic agents for topical and systemic administration		CPA	Interactive lecture/case-based discussion/ Clinics					
INSTRUMENTATION								
Manual scaling instruments	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics/ Skills session					
Ultrasonic scalers		CPA	Interactive lecture/case-based discussion/ Clinics					
Surgical instruments		CPA	Interactive lecture/case-based discussion/ Clinics					
CHEMOTHEURAPEUTIC AGENTS								
Definitions	Dr.Marij Hameed	C	Interactive lecture/case-based discussion					
Antibiotics in Periodontal Diseases		CPA	Interactive lecture/case-based discussion/ Clinics					
Local Drug Delivery		C	Interactive lecture/case-					

			based discussion/ Clinics					
PERIODONTAL THERAPY (NON SURGICAL)								
Proper history diagnosis and examination of patient	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics					
Complete periodontal charting		CPA	Interactive lecture/case-based discussion/ Clinics/ Skills session					
Scaling and Root planing		CPA	Interactive lecture/case-based discussion/ Clinics/ Skills session					
Follow up		CPA	Interactive lecture/case-based discussion/ Clinics					
SURGICAL PERIODONTOLOGY						X	3	1
GENERAL PRINCIPLES OF PERIODONTAL SURGERY								
Equipment, Pre op management, Anesthesia	Dr.Marij Hameed	C	Interactive lecture/case-based discussion					
Periodontal dressings		C	Interactive lecture/case-based discussion					
Post op instructions, complications and Management		CPA	Interactive lecture/case-based discussion/ discussion/					

			Clinics					
Indications and Contraindications		C	Interactive lecture/case-based discussion					
SURGICAL PROCEDURES								
Curettage – Rationale, indication, procedure, post treatment healing	Dr.Marij Hameed	CPA	Interactive lecture/case-based discussion/ Clinics/ Skills session					
Gingivectomy – indication, contraindications, procedure, types		C	Interactive lecture/case-based discussion					
Gingivoplasty - indication, contraindications, procedure		C	Interactive lecture/case-based discussion					
Flap surgery – Classification, designs, incisions, suturing, post treatment healing, flap techniques, sutures	Dr.Marij Hameed	C	Interactive lecture/case-based discussion					
Osseous surgery – Rationale, Factors, Technique, steps involved, armamentarium, post op maintenance	Dr.Marij Hameed	C	Interactive lecture/case-based discussion					
Regenerative Periodontal Therapy- GTR, GBR, grafts		C	Interactive lecture/case-based discussion					
Furcation Involvement – Anatomy, Diagnosis, Factors		CPA	Interactive lecture/case-based discussion/					

affecting, Classification, Treatment Options, prognosis			Clinics/ Skills session						
Esthetic and Plastic Periodontal Surgery – objectives, factors affecting outcome, techniques to remove frenum, deepen vestibule, increase attached gingiva.		C	Interactive lecture/case-based discussion						
DENTAL IMPLANTS						X	3	1	
Basic Introduction and Rationale of Dental implants	Dr.Marij Hameed	C	Interactive lecture/case-based discussion						
Treatment Planning		C	Interactive lecture/case-based discussion						
Complications		C	Interactive lecture/case-based discussion						
SUPPORTIVE PERIODONTAL CARE						X	3	1	
Rationale for supportive periodontal treatment	Dr.Marij Hameed	C	Interactive lecture/case-based discussion						
Maintenance Program		CPA	Interactive lecture/case-based discussion/ Clinics						
Classification of post treatment patients		C	Interactive lecture/case-based discussion						

Referral of patient to the periodontist		CPA	Interactive lecture/case -based discussion/ Clinics					
Splinting of the teeth		C	Interactive lecture/case -based discussion					

Learning resources

Topics	Resources
The Normal Peridontium Classification of Periodontal Disease and Epidemiology	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major M. Ash
Etiology of Periodontal disease	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major M. Ash
Periodontal Pathogenesis	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major M. Ash
Periodontal Disease	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern

	Theory and Practice by Sigurd P. Ramford Major M. Ash
Periodontal Examination, Diagnosis and Therapy	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major M. Ash
Surgical Periodontology	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major M. Ash
Dental Implantology	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major M. Ash
Supportive Periodontal Care	• Clinical periodontology by Glickman • Clinical Periodontology by Manson • Colour Atlas of Clinical Surgical Periodontology by Strahan & White • A text book of clinical periodontology by Jan Lindhe • Fundamentals of Periodontics by Thomas G Wilson, Kenneths Komman • Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major M. Ash

OTHER LEARNING RESOURCES

Clinics / Practical	Students will be involved in clinical work in the periodontology clinic
Videos	Video familiarize the student with the procedures and protocols to assist patients
Computer Lab/CSs/DVDs/ Internet Resources:	To increase the knowledge, students should utilize the available internet resources and CDs/ DVDs. This will be an additional advantage to increase learning.
Self Learning	Self Learning is scheduled to search for information to solve cases, read through different resources and discuss among the peers and with the faculty to clarify the concepts.

ASSESSMENT METHODS:

Internal Assessment

- a. Weightage of internal assessment shall be 10 %, each for theory and practical, in BDS Professional Examination.
- b. The Internal Assessment shall comprise of monthly test / PBL / assignments / Clinical tests / clinical vivas etc
- c. The Internal Assessment record shall be kept in the respective department of the College / Institute and after approval of Principal, a summary as per University registration number shall be furnished to the Controller of Examinations, at least two weeks before the commencement of final examination.
- d. The result of all the class tests / tools which contribute towards IA will be displayed to the students during an academic year.
- e. The same internal assessment shall be counted both for annual and supplementary examinations. The students who are relegated, however, can improve the internal assessment during subsequent year
- f. Internal assessment tools of any subject may be changed after the approval of respective FBS

Annual Examination

- a. The weightage of Annual Examination shall be 90%, each for theory and practical, in BDS.
- b. The examination comprises of a theory paper and practical/clinical examinations as per PM&DC regulations and the Table of Specifications(TOS) of the University.
- c. The gap between two consecutive theory papers shall not be more than two days.
- d. The Theory Paper shall be of 3-hours duration, held under the arrangements of the university. It shall have two parts; MCQs (30%) and SAQs/SEQs (70 %) for the year 2018. It may be changed after the approval of Academic Council.
- e. Allocated time for MCQs for 2019 shall be as under:

25 MCQs	-	30 Minutes
30 MCQs	-	40 Minutes
40 MCQs	-	50 Minutes
45 MCQs	-	60 Minutes
- f. Each MCQs shall have four distractors
- g. The distribution of SAQs/SEQs as well as MCQ difficulty levels for BDS annual examinations is as under: -

Sr. No	Topic	No of MCQs (25) (C1=10, C2=7, C3=8) 01 mark each	No. of SAQs/SEQs (09) 05xSAQs/SEQs(C1 & C2)=7 marks each 03xSAQ/SEQs(C3)=7 marks each 01xSAQs/SEQs(C3)=9 marks each
1	The Normal Peridontium	03	01
2	Classification of periodontal disease and epidemiology		
3	Etiology of periodontal disease • Periodontal microbiology • Host response and host bacterial interactions • Iatrogenic and other local factors • Systemic factors • Dental deposits	03	
4	Periodontal pathogenesis • Gingival inflammation • Periodontal pocket • Bone loss and patterns of bone loss	03	01
5	Periodontal diseases • Gingivitis • Acute periodontal conditions • Desquamative gingivitis • Chronic enlargement • Gingival growth • Chronic periodontitis • Aggressive periodontitis • NUP , NUP • Trauma from occlusion • Systemic disease with periodontal manisfestation	04	02
6	Periodontal examination , diagnosis and therapy	03	01

	• Periodontal examination • Periodontal diagnosis • Treatment planning • Plaque control • Instrumentation • Chemotheurapeutic agents • Periodontal therapy (non surgical)		
7	Surgical periodontology • Surgical curettage • Gingivectomy , gingiveoplasty • Flap surgery • Osseous surgery , regenerative periodontal therapy , GTR • Furcation involvement • Esthetic and plastic periodontal surgery	03	01
8	Dental implants-basic intro , rationale , treatment planning , complications	03	01
9	Supportive periodontal care • Rationale for supportive periodontal treatment • Maintenance program • Classification of post treatment patients • Referral of patient to the periodontist • Splinting of teeth	03	01
Total		25 (25 marks)	09 (65 marks)
Grand Total		90 Marks	

Internal assessment calculation (Theory/ Annual)

A	B	C	D	F	G
Roll No.	Name	All modules/ Pre Annual Exams or any other exam			Total Marks of internal assessment out of 10
Total Marks		Sum of Marks obtained x 10 / sum of total marks in all exams			

Table of specifications for Annual Professional Exam: Practical

VIVA 50 marks		Practical / Clinical 40 marks				Total
Examiner 1	Examiner 2	Oral Examination and Diagnosis	History Taking	Scaling of teeth	Identification of Slides and Instruments	90 Marks
25 Marks	25 Marks	10 Marks	5 Marks	15 Marks	10 Marks	

Internal assessment calculation (Practical)

A	B	C	D	F	G
Roll No.	Name	OSPE/ Practical Class tests throughout the year / Pre annual Practical Exams or any other exam			Total Marks of internal assessment out of 10
Total Marks		Sum of Marks obtained x 10 / sum of total marks in all exams			

Multiple Choice Question (MCQs)

- A multiple choice question (MCQ) consist of a stem that states the question or problem followed by a set of possible answers that contain an option that is best answer to the question.
- After reading the questions students should select the appropriate option from the given possible answers.
- The correct answer carries one mark and incorrect carries zero. There is no negative marking.

Sample MCQ

The tooth supporting tissues are derived from

- a) Dental papilla
 - b) Dental follicle
 - c) Dental lamina
 - d) Hertwigs epithelial root sheath
 - e) Enamel knot
- key: b

Short Answer question (SAQs)

- Short essay questions require students to present written answers that are used to asses basic knowledge of key facts and provide students with an opportunity to demonstrate reasoning and explain their understanding of the subject.

Sample SAQ

A 29-year-old woman, medically fit and healthy, presented to your clinic with the complaint of food impaction in upper right jaw. On probing, you find a deep periodontal pocket between tooth # 14 and 15.

- a) Classify Periodontal Pockets. (2)
- b) Correlate the Clinical and Histo-pathological features of periodontal pocket. (5)

Key: a)

True and false/pseudo pocket

Supra and infra bony pockets

Gingival and periodontal

pockets

Simple, compound and complex pockets

b)

	Clinical Features	Histopathologic features
1	Gingival wall of pocket presents various degrees of bluish red discoloration; flaccidity; a smooth, shiny surface; and pitting on pressure.	The discoloration is caused by circulatory stagnation; the flaccidity, by destruction of gingival fibres and surrounding tissues; the smooth, shiny surface. By atrophy or epithelium and edema; and the pitting on pressure, by edema and degeneration
2	Less frequently, gingival wall may be pink and firm.	In such cases, fibrotic changes predominate over exudation and degeneration, particularly in relation to outer surface of pocket wall. However, despite external appearance of health, inner wall of pocket invariably presents some degeneration and is often ulcerated (see figure 27-15)
3	Bleeding is elicited by gently probing soft tissue wall of pocket	Ease of bleeding results from increased vascularity, thinning and degeneration of epithelium and proximity of engorged vessels to inner surface
4	When explored with a probe, inner aspect of pocket is generally painful	Pain on tactile stimulation is caused by ulceration of inner aspect of pocket wall
5	In many cases, pus may be expressed by applying digital pressure	Pus occurs in pockets with supportive inflammation of inner wall

Internal Examiner

He/she shall be Professor and Head of Department who has been involved in teaching of the class being examined for at least six months and has delivered 50% of the total lectures. Second preference shall be Associate/Assistant Professor who is involved in teaching of the class and posted there for one year. Third preference shall be a recognized Professor of the subject.

External Examiner

He/she shall be a Professor/Associate Professor of a recognized Medical/Dental College or at least an Assistant Professor with three years teaching experience in the relevant subject.

Conflict of Interest

No person shall serve as an examiner whose close relative (wife, husband, son, daughter, adopted son, adopted daughter, grand-son, grand-daughter, brother, sister, niece /nephew, son and daughter- in-law brother and sister- in-law, parental and maternal uncle and aunt etc) is appearing in the examination. All examiners likely to serve as an examiner shall render a certificate in compliance to this para.

Paper Setting

- a. Each College / Institute shall forward a set of two question papers as per TOS along with the key for each subject to the Controller of Examinations, at least three months in advance of the annual examination. The question paper as a whole / a question without a comprehensive key shall not be considered towards final paper setting.
- b. The set of question papers shall be prepared by the respective Head of Department (HoD) and furnished to Controller of Examinations through Head of Institution (HoI)
- c. The Controller of Examinations shall approve the faculty for the final paper setting having fair representation of each college / institute.

Paper Assessment

- a. The Controller of Examinations shall approve the faculty for the theory paper marking, to be undertaken in the manner as deemed appropriate.
- b. The Examination Directorate shall coordinate directly with the faculty, earmarked for the paper marking
- c. A student who scores 85% and above marks in any subject shall qualify for distinction in that particular subject.
- d. A fraction in aggregate marks of a subject shall be rounded off to whole number. If it is less than 0.5 then it will be rounded off to the previous whole number while 0.5 or more will be rounded off to the next whole number.

Practical / Clinical Examinations

- a. The Controller of Examiners shall approve the faculty to serve as the internal & external examiners.
- b. The number of external and internal examiners shall be equal.
- c. One external & internal examiner each shall be marked for a group of 100 students.
- d. Candidates may be divided into groups in the clinical and practical examinations and be standardized by incorporating clinical exam
- e. Practical/clinical examination shall be held after the theory examination of the subject but in special cases, it may be held before the theory examination with the approval of the Controller of Examinations. For the purpose of practical/clinical examination, the candidates may be divided into sub groups by the examiners.
- f. The assessment of the practical / clinical examination duly signed by internal & external examiner shall be furnished to the Controller of Examinations within one week of the conclusion of examination

Pass Marks

- a. Pass marks for all subjects less Islamic / Pakistan Studies, shall be 50 % in theory and practical, separately.
- b. Pass marks for Islamic / Pakistan Studies shall be 33 % which, however, shall not be counted towards final scoring of the professional examination.
- c. No grace marks shall be allowed to any student in any examination.

Declaration of Result.

Every effort shall be made to declare the result of each examination within one month of the last practical examination or earlier

Promotion.

No student shall be promoted to the higher classes unless he/she passes all the subjects of the previous class

Re-Totaling.

Any student may apply to the Controller of Examinations on a prescribed form along with the specified fee.

Supplementary Examination.

The interval between a supplementary examination and the previous professional examination shall not be more than two months. There shall be no special supplementary examination.

Recommended books

1. Newman and Carranza Clinical Periodontology 13th edition
2. Clinical periodontology Jan Lindhe 6th edition
3. Atlas of periodontology and Implant therapy
4. Periodontics by J.D Manson 6th Edition