



Institute of Dentistry,
CMH Lahore Medical College
Study Guide
Department of Prosthodontics
(2020 – 2021)

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INTRODUCTION TO PROSTHODONTICS

In final year Prosthodontics, this course aims to teach didactic and clinical skills leading to competency in the field of prosthodontics. The program provides a basic science foundation for clinical and technical skills, incorporating studies in diagnosis and treatment planning of partially and completely edentulous arches.

Since proficiency in all elements of prosthodontics is required, equal emphasis is placed on partial, complete, fixed and implant prosthodontics. This will give the final year students to develop knowledge, skills and attitude, to enable critical evaluation and problem solving for prosthodontic problems to allow treating patients.

Resources:

- A. Teaching resources
- B. Infrastructure resources

A. Teaching resources

Sr. #.	Faculty Name	Designation as per PM&DC Certificate	Qualification
1	Prof. Dr. Abdul Mueed Zaigham	Professor/ HoD	BDS, FCPS Prosthodontics
2	Prof. Dr. Hina Zafar Raja	Professor	BDS, FCPS Prosthodontics
3	Dr. Muhammad Afzal	Assoc. Professor/ Associate Dean	BDS, FCPS Prosthodontics
4	Dr. Atiq Ur Rehman	Asst. Professor	BDS, MCPS Family Dentistry, FCPS Prosthodontics
5	Lt. Col. Aqeel Ibrahim	Senior Registrar	BDS, FCPS Prosthodontics
6	Dr. Saira Ibrahim	Senior Registrar	BDS, FCPS Prosthodontics
7	Dr. Khalid Yaqub	Registrar	BDS, FCPS Prosthodontics
8	Dr Ayman Iftikhar	Demonstrator	BDS
9	Dr. Sanaa Alamgir	Demonstrator	BDS
10	Dr. Hamza Sahaf	FCPS – II Trainee	BDS
11	Dr. Hamza Talat	FCPS – II Trainee	BDS
12	Dr. Fizza Tahir	FCPS – II Trainee	BDS
13	Dr. Maila Habib	FCPS – II Trainee	BDS
14	Dr. Fatima Hafeez	FCPS – II Trainee	BDS

B. Infrastructure resources:

Sr. No.	Infrastructure Resources	Quantity
1.	Operating Hall	01
2.	Specialist clinic	01
3.	Dental Units	19
4.	Dental Stools	19
5.	Phantom Head Labs <ul style="list-style-type: none"> • Lab A- Phantom heads • Lab B- Phantom heads 	02 <ul style="list-style-type: none"> • 20 • 20
6.	Reception	01
7.	Staff Room	01
8.	CAD CAM Laboratory	01
9.	Prosthodontics lab	01
10.	Ceramic lab	01
11.	Plaster room	01

TEACHING AND LEARNING STRATEGIES

Multiple educational methods will be used comprising of interactive lectures, group discussions, self-study, practical demonstrations, 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
- Hands on demonstrations
- Tutorials
- Collaborative learning
- Self-study and reading from learning resources

(ii) Methods for achieving psychomotor objectives

- Diagnosis and treatment planning
- Patient handling
- Clinical skills

(iii) Methods for achieving affective objectives

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

LEARNING METHODOLOGIES:

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

- Interactive Lectures
- Hospital / Clinic visits
- Small Group Discussion
- Case – Based Learning
- Practical
- Skills session
- E- Learning
- Self-Directed Study

INTERACTIVE LECTURES

In large group, the lecturer introduces a topic or common clinical condition and explains the underlying phenomena through questions, Pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.

HOSPITAL VISITS: in small groups, students observe patients with signs and symptoms in hospital or clinical settings. This helps students to relate knowledge of basic and clinical sciences of the relevant module.

SMALL GROUP DISCUSSION (SGD): This format helps students to clarify concept acquire skills or attitudes, session are structured with the help of specific exercise such as patient case, interviews or discussion topic. Students exchange opinions and apply knowledge gained from lectures, tutorials, and self-study. The facilitator role is to ask probing questions summarize, or rephrase to help clarify concepts.

CASE – BASED LEARNING: A small group discussion format where learning is focused around a series of question based on a clinical scenario. Students' discuss and answer the questions applying relevant knowledge gained in clinical and basic health sciences during the module.

TEAM – BASED LEARNING: Team – Based Learning is an evidence based collaborative learning teaching strategy designed around units of instruction, known as “modules,” that are taught in a three-step cycle: (a) Preparation, (b) in-class readiness assurance testing and (c) application-focused exercise.

- a) **Preparation before class:** Students must complete preparatory materials before a class or the start of the module. Materials may be text, visual or other, and set at a level that is appropriate to the students and the course.

- b) **In-class Reading Assurance Testing:** Students complete an individual readiness assurance test (IRAT), consisting of 5 to 20 multiple choice questions. After submitting their individual answers, they take the same test, the team RAT (TRAT), with their team. All members of each team share the same TRAT score, and both IRAR and TRAT source count toward the students' grades.
- c) **Instructor Feedback:** The instructor reviews materials from the RAT that seems to be difficult for students.
- d) **In-class application focused exercise:** the remainder of the session is taken up with exercises that help students learn how to apply and extend the knowledge that they have pre-learned and tested. Teams are given an appropriate problem or challenges, and must arrive at a consensus to choose a "best" solution out of options provided. Teams then display their answer choice, and the educator facilitates a classroom discussion between teams to explore the topic and the possible answer to the problem.

PRACTICAL: Basic science practical related to Prosthodontics are scheduled for student learning.

SKILLS SESSION: Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

SELF DIRECTED STUDY: Students' assume 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 of self-study.

E-LEARNING: E-Learning is a strategy by which learning occurs through the utilization of electronic media, typically the internet. The basic aspects of medical professionalism and ethics will be addressed through an e-learning course.

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.

a) Personnel involved in teaching and facilitation

- (i) Lectures delivery by:**
- Prof. Dr. Abdul Mueed Zaigham (Professor/HoD)
 - Prof. Dr Hina Zafar Raja (Professor)
 - Dr. Muhammad Afzal (Associate professor)
 - Dr. Atiq Ur Rehman (Assistant professor)
 - Dr. Aqeel Ibrahim (Senior Registrar)
 - Dr. Saira Ibrahim (Senior Registrar)

(ii) Registrar for clinics/practical and small group discussion sessions:

Dr. Khalid Yaqub, Dr. Myla Habib, Dr. Fizza, Dr. Fatima Hafeez, Dr. Omer Masood Alam Shad, Dr. Hamza Talat, Dr. Hamza Sahaf

(iii) Support staff: nominated by the medical education department

(iv) Computer assistant: 1 as nominated by the college

b) Time frame

Course duration: 36 weeks

Lectures: Monday (8:50 to 9:40am)

Wednesday: (8:00 to 8:50 am)

Friday: (8:50 to 9:40 am)

Practical/ clinical visits: Monday – Thursday (10:00 to 3:00 pm)

Friday (10:00 to 3:00 pm including Jumma break 1:00 pm to 2:00 pm)

Self-study: 5-6 hours per week

COURSE OBJECTIVES AND STRATEGIES:

SECTION I: Complete denture Prosthodontics-I

Topic Weightage: 10%

Time Allocation: 04 weeks

Assessment items in Final Exam: 04 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs
1. Introduction to Patient Evaluation <ul style="list-style-type: none"> Describe Mental classification Discuss Influence of patient's demographic data on treatment planning 	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture			X	04	01
2. Anatomy of edentulous mouth <ul style="list-style-type: none"> Describe Denture Bearing areas Describe Maxillary Anatomical Landmarks Describe Mandibular anatomical land marks Describe Intraoral Biometric guides 				Dr. Muhammad Afzal	C	Interactive lecture		
3. Sequelae of wearing complete denture <ul style="list-style-type: none"> Discuss Direct sequelae: Denture Stomatitis, burning mouth syndrome Discuss Indirect sequelae 	Prof. Dr. Hina Zafar Raja	C	Interactive lecture			X		

4. Residual ridge reduction	Prof. Dr. Hina Zafar Raja	C	Interactive lecture			X		
<ul style="list-style-type: none"> Describe Etiological factors of RRR 								
5. Patient preparation for complete denture treatment	Dr. Muhammad Afzal	CPA	Interactive lecture/ Small group discussion			X		
<ul style="list-style-type: none"> Discuss Examination of edentulous patient 								
<ul style="list-style-type: none"> Describe Mouth preparation 								
<ul style="list-style-type: none"> Describe Conditioning of oral tissues 								
6. Patient preparation for complete denture treatment	Prof. Dr. Hina Zafar Raja	C	Interactive lecture/ small group discussion			X		
<ul style="list-style-type: none"> Describe Gag reflex management 								
<ul style="list-style-type: none"> Describe Management of special systemic conditions 								
7. Biomechanics of edentulous state	Prof. Dr. Hina Zafar Raja	C	Interactive lecture	X				
<ul style="list-style-type: none"> Describe Support mechanism of natural dentition 								
<ul style="list-style-type: none"> Describe Support mechanism of complete denture 								
<ul style="list-style-type: none"> Discuss Morphological changes effecting esthetics, lower facial height and temporomandibular joint 								

SECTION II: Complete denture Prosthodontics-II**Topic Weightage: 10%****Time Allocation: 04 weeks****Assessment items in Final Exam: 04 MCQs & 01 SAQ/ SEQ**

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs
8. Physiology of mouth and saliva in relation to denture retention	Dr. Atiq ur Rehman	C	Interactive lecture	X			04	01
<ul style="list-style-type: none"> • What Factors effect retention of complete denture 								
<ul style="list-style-type: none"> • Role of saliva 								
<ul style="list-style-type: none"> • Discuss Effects of Xerostomia on denture retention 								
<ul style="list-style-type: none"> • Describe Management of xerostomia 								
9. Recording impression in complete denture	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture/ Practical			X		
<ul style="list-style-type: none"> • Discuss Objectives of impression making 								
<ul style="list-style-type: none"> • Describe Theories of impression making 								
10. Recording impression in complete denture	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture/ practical			X		
<ul style="list-style-type: none"> • Describe Impression techniques 								
<ul style="list-style-type: none"> • Discuss Types of impressions and denture bases 								

11. Jaw relation records								
<ul style="list-style-type: none"> Describe Making of occlusal rims 	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture/ practical			X		
<ul style="list-style-type: none"> Discuss Orientation relation records / Facebow 								
<ul style="list-style-type: none"> Discuss Significance of vertical relation records 								
<ul style="list-style-type: none"> Describe Physiological methods 								
<ul style="list-style-type: none"> Describe Mechanical Methods 								
<ul style="list-style-type: none"> Describe Horizontal relations and their terminologies 								
<ul style="list-style-type: none"> Discuss Significance of centric relation record techniques 								
<ul style="list-style-type: none"> Define Articulators, types, functions and methods of articulators 								
12. Occlusion								
<ul style="list-style-type: none"> Discuss Theories of occlusion 	Dr. Atiq ur Rehman	C	Interactive lecture	X				
<ul style="list-style-type: none"> Describe Differences between natural and artificial occlusion 								
<ul style="list-style-type: none"> Discuss Types of occlusal scheme 								
<ul style="list-style-type: none"> What Factors effect complete denture occlusion 								
<ul style="list-style-type: none"> Describe Balanced occlusion, definition, norms and significance 								
13. Selection of artificial teeth								
<ul style="list-style-type: none"> Dentogenic concept 	Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture			X		
<ul style="list-style-type: none"> Utilization of biometric guides 								

14. Arrangement of anterior teeth	Dr. Muhammad Afzal	CPA	Interactive lecture/ Skill			X		
<ul style="list-style-type: none"> Describe Relations of teeth in accordance with five planes and esthetic guide lines 								
<ul style="list-style-type: none"> Describe Relations of teeth in accordance with five planes and biometric guide lines 								
15. Arrangement of teeth in Neutral Zone	Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture/ practical			X		
<ul style="list-style-type: none"> Describe Arrangement with neutral zone concept 								
<ul style="list-style-type: none"> Discuss Types of complaints 								
<ul style="list-style-type: none"> Discuss Symptoms of these complaints 								
<ul style="list-style-type: none"> Discuss Management of these complaints 								

SECTION III: Complete denture Prosthodontics-III

Topic Weightage: 10%

Time Allocation: 04 weeks

Assessment items in Final Exam: 05 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs
16. Trial of complete dentures	Dr. Atiq ur Rehman	CPA	Interactive lecture/ practical			X	04	01
<ul style="list-style-type: none"> Describe Evaluation of prosthesis in accordance with objectives of complete dentures 								

<ul style="list-style-type: none"> Discuss Palatal morphology and palatograms 							
17. Immediate dentures	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture				
<ul style="list-style-type: none"> Describe Case Selection for immediate dentures Describe Clinical steps 							
18. Overdentures	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture				
<ul style="list-style-type: none"> Discuss Clinical procedure Discuss Management 							
19. Copy dentures	Prof. Dr. Hina Zafar Raja	C	Interactive lecture				
<ul style="list-style-type: none"> Discuss Clinical Procedure Describe Laboratory procedures 							
20. Speech considerations of complete denture	Dr. Muhammad Afzal	C	Interactive lecture				X
<ul style="list-style-type: none"> Discuss Tooth arrangement in reference to phonetics 							
<ul style="list-style-type: none"> Describe Use of sibilants 							
21. Finishing of dentures, insertion	Dr. Atiq ur Rehman	CPA	Interactive lecture/ Skill	X			
<ul style="list-style-type: none"> Describe Laboratory procedure and material for finishing ,polishing and occlusal adjustment 							
<ul style="list-style-type: none"> Describe Steps of insertion procedure 							
<ul style="list-style-type: none"> Discuss Instruction to patient for prosthesis maintenance Denture cleaning aids and procedures 							
22. Post insertion complaints and management	Dr. Atiq ur Rehman	CPA					

<ul style="list-style-type: none"> Discuss Types of complaints 			Interactive lecture/ Skill					
<ul style="list-style-type: none"> Discuss Symptoms of these complaints 								
<ul style="list-style-type: none"> Discuss Management of these complaints 								

SECTION IV: Removable Partial Prosthodontics-I

Topic Weightage: 9%

Time Allocation: 03 weeks

Assessment items in Final Exam: 04 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs
23. Introduction to Removable partial denture	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture			X	04	01
<ul style="list-style-type: none"> What are the Consequences of Tooth Loss 								
<ul style="list-style-type: none"> Describe Restoration with Prostheses 								
<ul style="list-style-type: none"> Describe Current use of Removable Partial Dentures 								
<ul style="list-style-type: none"> What is Need for Removable Partial Dentures 								
<ul style="list-style-type: none"> Describe Tooth Loss and Age 								
24. Classification of partially edentulous arches	Dr. Muhammad Afzal	C	Interactive lecture / small group discussion			X	04	01
<ul style="list-style-type: none"> What are Requirements of an Acceptable Method of classification 								

<ul style="list-style-type: none"> Describe Kennedy’s Classification for RPDs 							
<ul style="list-style-type: none"> Describe the Applegate’s Rules for Applying the Kennedy classification 							
25. Biomechanics of Removable Partial Dentures	Dr. Atiq ur Rehman	C	Interactive lecture	X			
<ul style="list-style-type: none"> Describe Biomechanics and Design Solutions 							
<ul style="list-style-type: none"> What are the Biomechanical Considerations for Removable partial dentures 							
<ul style="list-style-type: none"> What is the Impact of Implants on Movements of Partial dentures 							
<ul style="list-style-type: none"> Describe Possible Movements of Partial Dentures 							
26. Major connectors	Dr. Muhammad Afzal	C	Interactive lecture / small group discussion				
<ul style="list-style-type: none"> Describe Role of Major Connectors in Control of Prosthesis movement 							
<ul style="list-style-type: none"> What are the types of maxillary and mandibular major connectors 							
27. Minor connectors	Dr. Muhammad Afzal	C	Interactive lecture / small group discussion				X
<ul style="list-style-type: none"> Describe form and location of minor connector 							
<ul style="list-style-type: none"> What is the function of minor connector 							
28. Rests and Rest seat Preparation							

<ul style="list-style-type: none"> Describe role of Rests in control of Prosthesis movement 	Prof. Dr. Hina Zafar Raja	C	Interactive lecture					
<ul style="list-style-type: none"> What is the Form of the Occlusal Rest and Rest Seat 								
<ul style="list-style-type: none"> Describe Extended Occlusal Rest 								
<ul style="list-style-type: none"> Describe Interproximal Occlusal Rest Seats? 								
<ul style="list-style-type: none"> Describe Internal Occlusal Rest 								
<ul style="list-style-type: none"> How Implants acts as a Rest 								
<ul style="list-style-type: none"> Describe Support for Rests 								
<ul style="list-style-type: none"> Describe Lingual Rests on Canines and Incisor Teeth 								
<ul style="list-style-type: none"> Describe Incisal Rests and Rest Seats 								

SECTION V: Removable Partial Prosthodontics-II

Topic Weightage: 9%

Time Allocation: 04 weeks

Assessment items in Final Exam: 04 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs
29. Direct retainers / Precision attachment								
<ul style="list-style-type: none"> Describe Direct Retainer's Role in Control of Prosthesis movement 								

<ul style="list-style-type: none"> Describe types of Direct Retainers 	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture/ Skill				02	01
<ul style="list-style-type: none"> What is the Criteria for Selecting a Given Clasp Design 								
<ul style="list-style-type: none"> Describe types of Clasp Assemblies 								
<ul style="list-style-type: none"> How Implants acts as Direct Retainers 								
<ul style="list-style-type: none"> Analyze the Tooth Contours for Retentive Clasps 								
<ul style="list-style-type: none"> Describe Amount of Retention for clasp 								
<ul style="list-style-type: none"> Describe Other Types of Retainers 								
<ul style="list-style-type: none"> Describe Internal Attachments 								
30. Indirect Retainers	Dr. Muhammad Afzal	C	Interactive lecture			X		
<ul style="list-style-type: none"> Describe Role of Indirect Retainers in Control of Prosthesis Movement 								
<ul style="list-style-type: none"> What Factors Influence Effectiveness of Indirect Retainers 								
<ul style="list-style-type: none"> What is the Auxiliary Functions of Indirect Retainers 								
<ul style="list-style-type: none"> Describe Form of indirect retainers 	Prof. Dr. Hina Zafar Raja	C	Interactive lecture	X				
31. Denture Base Considerations								
<ul style="list-style-type: none"> Describe Functions of Denture Bases in Control of Prosthesis Movement 								
<ul style="list-style-type: none"> Describe Methods of Attaching Denture Bases 								

<ul style="list-style-type: none"> Describe Methods for Incorporating Dental Implants 								
<ul style="list-style-type: none"> Describe ideal Denture Base Material 								
<ul style="list-style-type: none"> What are Advantages of Metal Bases 								
<ul style="list-style-type: none"> Discuss Methods of Attaching Artificial Teeth 								
<ul style="list-style-type: none"> Discuss Need for Relining 								
<ul style="list-style-type: none"> What are Stress breakers 								
32. Principles of Removable Partial Denture								
<ul style="list-style-type: none"> Design 	Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture / small group discussion			X		
<ul style="list-style-type: none"> Describe Difference in Prosthesis Support and how it Influence on design of RPD 								
<ul style="list-style-type: none"> Differentiate Between Two Main Types of RPDs 								
<ul style="list-style-type: none"> Discuss Essentials of Partial Denture Design 								
<ul style="list-style-type: none"> Describe Components of Partial Denture Design 								
<ul style="list-style-type: none"> Discuss Implant Considerations in Design 								
<ul style="list-style-type: none"> Discuss Additional Considerations Influencing Design 								
33. Surveying								
<ul style="list-style-type: none"> Describe Dental Surveyor 	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture / Skill	X				
<ul style="list-style-type: none"> What is the Purposes of the Surveyor 								
<ul style="list-style-type: none"> Discuss Factors that Determine Path of 								

Placement and Removal								
<ul style="list-style-type: none"> Describe Step-by-Step Procedures in Surveying a Diagnostic Cast 								
<ul style="list-style-type: none"> Discuss Final Path of Placement 								
<ul style="list-style-type: none"> Describe Recording Relation of Cast to Surveyor 								
<ul style="list-style-type: none"> Describe Surveying the Master Cast 								
<ul style="list-style-type: none"> Discuss Blocking out the Master Cast for surveying 								
<ul style="list-style-type: none"> Discuss Relieving the Master Cast 								
<ul style="list-style-type: none"> Describe Paralleled Blockout, Shaped Blockout, Arbitrary Blockout, and Relief 								
34. Diagnosis and Treatment Planning in RPDs								
<ul style="list-style-type: none"> What is Purpose and Uniqueness of Treatment 	Dr. Atiq ur Rehman	CPA	Interactive lecture / Small group discussion		X			
<ul style="list-style-type: none"> Discuss Patient Interview 								
<ul style="list-style-type: none"> Describe Shared Decision Making 								
<ul style="list-style-type: none"> Explain Clinical Examination 								
<ul style="list-style-type: none"> What are the Objectives of Prosthodontic Treatment 								
<ul style="list-style-type: none"> Discuss Oral Examination 								
<ul style="list-style-type: none"> Describe Role of Diagnostic Casts in diagnosis 								

<ul style="list-style-type: none"> Discuss Diagnostic Findings 								
<ul style="list-style-type: none"> Discuss Interpretation of Examination Data 								
<ul style="list-style-type: none"> Describe Infection Control 								
<ul style="list-style-type: none"> Discuss Differential Diagnosis: Fixed or Removable partial denture 								
<ul style="list-style-type: none"> Discuss Choice Between Complete Dentures and Removable Partial Dentures 								
<ul style="list-style-type: none"> Describe Clinical Factors Related to Metal Alloys used for Removable Partial Denture Frameworks 								

SECTION VI: Removable Partial Prosthodontics-III

Topic Weightage: 9%

Time Allocation: 04 weeks

Assessment items in Final Exam: 05 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs
35. Mouth preparations for RPD, abutment preparation								
<ul style="list-style-type: none"> Discuss Pre-Prosthetic Considerations in Partially Edentulous Mouths 								
<ul style="list-style-type: none"> Describe Periodontal Preparation for RPDs 		CPA				X	02	01

<ul style="list-style-type: none"> Describe Optimization of the Foundation for Fitting and Function of the Prosthesis 	Prof. Dr. Hina Zafar Raja		Interactive lecture / Skill					
<ul style="list-style-type: none"> Classify Abutment Teeth for RPD 								
<ul style="list-style-type: none"> Discuss Sequence of Abutment Preparations on Sound Enamel or Existing Restorations 								
<ul style="list-style-type: none"> Describe Abutment Preparations Using Conservative Restorations 								
<ul style="list-style-type: none"> Describe Abutment Preparations Using Crowns 								
<ul style="list-style-type: none"> Discuss Splinting of Abutment Teeth 								
<ul style="list-style-type: none"> Describe Use of Isolated Teeth as Abutments 								
<ul style="list-style-type: none"> Describe Temporary Crowns when a Removable Partial Denture is Being Worn 								
<ul style="list-style-type: none"> Discuss Fabricating Restorations to Fit Existing Denture 								
<p>36. Impression Materials and Procedures form Removable Partial Dentures</p>								
<ul style="list-style-type: none"> Discuss Elastic Materials 								
<ul style="list-style-type: none"> Discuss Rigid Materials 								

<ul style="list-style-type: none"> Discuss Thermoplastic Materials 								
<ul style="list-style-type: none"> Describe Impressions of the Partially Edentulous Arch 								
<ul style="list-style-type: none"> Discuss use of Individual Impression Trays 								
37. Support for the Distal Extension Denture Base	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture / small group discussion			X		
<ul style="list-style-type: none"> Describe Distal Extension Removable Partial Denture 								
<ul style="list-style-type: none"> What Factors Influence the Support of a Distal Extension Base 								
<ul style="list-style-type: none"> Describe Anatomic form Impression 								
<ul style="list-style-type: none"> Describe Methods for Obtaining Functional Support for the Distal Extension Base 								
38. Occlusal Relationships for Removable Partial Dentures	Dr. Atiq ur Rehman	C	interactive lecture / small group discussion	X				
<ul style="list-style-type: none"> Desirable Occlusal Contact Relationships for Removable Partial Dentures 								
<ul style="list-style-type: none"> Discuss Methods for Establishing Occlusal Relationships 								
<ul style="list-style-type: none"> Discuss Materials used for Artificial Posterior Teeth 								
<ul style="list-style-type: none"> Describe Establishing Jaw Relations for a Mandibular Removable Partial 								

Denture Opposing a Maxillary Complete Denture								
39. Initial Placement, Adjustment, and Servicing of the Removable Partial Denture	Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture / Skill			X		
<ul style="list-style-type: none"> • Discuss Adjustments to Bearing Surfaces of Denture Bases 								
<ul style="list-style-type: none"> • Describe Occlusal Interference from Denture Framework 								
<ul style="list-style-type: none"> • Describe Adjustment of Occlusion in Harmony with Natural and Artificial Dentition 								
<ul style="list-style-type: none"> • Discuss Instructions to the Patient wearing RPDs 								
<ul style="list-style-type: none"> • Describe Follow-Up Service 								
40. Relining and Rebasling the Removable Partial Denture	Dr. Atiq ur Rehman	CPA	Interactive lecture		X			
<ul style="list-style-type: none"> • Describe Relining Tooth-Supported and Tooth Implant-Supported Denture Bases 								
<ul style="list-style-type: none"> • Describe Relining Distal Extension Denture Bases 								
<ul style="list-style-type: none"> • Describe Methods of Reestablishing Occlusion on a Relined Removable Partial Denture 								

<p>41. Repairs and Additions to Removable Partial Dentures</p>	<p>Dr. Atiq ur Rehman</p>	<p>CPA</p>	<p>Interactive lecture</p>		<p>X</p>			
<ul style="list-style-type: none"> Discuss causes of Broken Clasp Arms 								
<ul style="list-style-type: none"> Discuss Fractured Occlusal Rests 								
<ul style="list-style-type: none"> Discuss Distortion or Breakage of Other Component- Major and Minor Connectors 								
<ul style="list-style-type: none"> Discuss Loss of a Tooth or Teeth not Involved in Support or Retention of the Restoration 								
<ul style="list-style-type: none"> Discuss Loss of an Abutment Tooth Necessitating its Replacement and Making a New Direct retainer 								
<ul style="list-style-type: none"> Describe Other Types of Repairs 								
<ul style="list-style-type: none"> Describe Repair by Soldering 								
<p>42. Interim Removable Partial Dentures</p>	<p>Dr. Atiq ur Rehman</p>	<p>C</p>	<p>Interactive lecture</p>			<p>X</p>		
<ul style="list-style-type: none"> Discus Importance of Appearance 								
<ul style="list-style-type: none"> Discuss importance of Space Maintenance 								
<ul style="list-style-type: none"> Discuss Reestablishing Occlusal Relationships 								
<ul style="list-style-type: none"> Describe Conditioning Teeth and Residual Ridges 								
<p>Describe importance of Interim Restoration During Treatment</p>								

<ul style="list-style-type: none"> Describe Conditioning the Patient for Wearing a Prosthesis 								
<ul style="list-style-type: none"> Describe Clinical Procedure for Placement 								

SECTION VII: Fixed Prosthodontics-I

Topic Weightage: 8%

Time Allocation: 04 weeks

Assessment items in Final Exam: 02 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	VIVA	OSPE	NUMS MCQs	NUMS SEQs
43. Introduction to Fixed Partial Denture	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture	X			02	01
44. PDI Classification	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture / small group discussion			X		
<ul style="list-style-type: none"> Describe Criteria for PDI classification Discuss Guidelines 								
45. Treatment Planning	Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture				X	
<ul style="list-style-type: none"> Discuss Identification of patient need 								
<ul style="list-style-type: none"> Describe Available materials 								
<ul style="list-style-type: none"> Describe Selection of Abutment Teeth 								

<ul style="list-style-type: none"> Discuss Treatment sequence 								
46. Principles of Occlusion	Dr. Muhammad Afzal	C	Interactive lecture / small group discussion					
<ul style="list-style-type: none"> Describe Mandibular movements 								
<ul style="list-style-type: none"> Describe Types of occlusion 								
<ul style="list-style-type: none"> Describe Organization of occlusion (Mutually Protected Occlusion) 								
<ul style="list-style-type: none"> Discuss Inter occlusal records (CR, MIR & LIR) 								
47. Periodontal Considerations	Dr. Muhammad Afzal	C	Interactive lecture / small group discussion				X	
<ul style="list-style-type: none"> Describe Biological width & its importance 								
<ul style="list-style-type: none"> Discuss Various margins placement 								
<ul style="list-style-type: none"> Describe Gingival Biotype 								
48. Crown Lengthening	Prof. Dr. Hina Zafar Raja	C	Interactive lecture				X	
<ul style="list-style-type: none"> Discuss Foundation restorations 								
<ul style="list-style-type: none"> Discuss Ante's Law 								
<ul style="list-style-type: none"> Describe Types of Bridges 								
<ul style="list-style-type: none"> Describe Tilted Abutment Teeth Management 								

SECTION VIII: Fixed Prosthodontics-II**Topic Weightage: 8%****Time Allocation: 03 weeks****Assessment items in Final Exam: 04 MCQs & 01 SAQ/ SEQ**

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT						
				Clinical	VIVA	OSPE	NUMS MCQs	NUMS SEQs		
49. Principles of Tooth Preparation <ul style="list-style-type: none"> Discuss Biological considerations Discuss Mechanical considerations Discuss Esthetic considerations 	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture			X	02	01		
50. Complete Cast Crown Preparation <ul style="list-style-type: none"> Discuss Advantages/ disadvantages Discuss Indications / contra indication Describe Preparation guidelines 				Dr. Muhammad Afzal	CPA	Interactive lecture/ Practical			X	
51. Metal - Ceramic Crown Preparation <ul style="list-style-type: none"> Discuss Advantages/ disadvantages Discuss Indications / contraindication 							Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture/ Practical	

<ul style="list-style-type: none"> Describe Preparation guidelines 								
52. All - Ceramic Crown Preparation	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture / Practical			X		
<ul style="list-style-type: none"> Discuss Advantages/ disadvantages 								
<ul style="list-style-type: none"> Discuss Indications / contraindication 								
<ul style="list-style-type: none"> Describe Preparation guidelines 								
53. Tissue Management & Impression Method	Prof. Dr. Abdul Mueed Zaigham	CPA	Interactive lecture / Practical					
<ul style="list-style-type: none"> Describe tissue Displacement 								
<ul style="list-style-type: none"> Describe Electro surgery 								
<ul style="list-style-type: none"> Describe Impression making 								
54. Interim restorations	Prof. Dr. Hina Zafar Raja	C	Interactive lecture / Skill			X		
<ul style="list-style-type: none"> Discuss Materials & Techniques 								
<ul style="list-style-type: none"> Discuss Ante's Law 								
<ul style="list-style-type: none"> Describe Types of Bridges 								
<ul style="list-style-type: none"> Describe Tilted Abutment Teeth Management 								

SECTION IX: Fixed Prosthodontics-III

Topic Weightage: 8%

Time Allocation: 03 weeks

Assessment items in Final Exam: 04 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT												
				Clinical	VIVA	OSPE	NUMS MCQs	NUMS SEQs								
55. Pontic Design	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture / Skill			X	02									
<ul style="list-style-type: none"> Discuss Biological / esthetic / mechanical considerations Describe Pontic classification 																
56. Laboratory Procedure in FPD	Dr. Muhammad Afzal	C	Interactive lecture/ Skill	X												
<ul style="list-style-type: none"> Describe Cast & dies Describe Wax patterns Discuss Frame work design 																
57. Investment and Casting									Dr. Atiq ur Rehman	C	Interactive lecture/ Skill	X				
<ul style="list-style-type: none"> Describe Sprue Considerations Discuss Casting procedure Discuss Casting defects 																
58. Luting Agents and Cementation Procedures	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture	X												
<ul style="list-style-type: none"> Discuss Different types of cements Describe Cementation procedure 																
59. Resin Retain Fixed Partial Dentures	Prof. Dr. Hina Zafar Raja	C	Interactive lecture/ Small group discussion	X												
<ul style="list-style-type: none"> Discuss Design concept 																

<ul style="list-style-type: none"> Describe Abutment tooth preparation guideline 							
60. Miscellaneous topic Related to FPDs	Prof. Dr. Hina Zafar Raja	C	Interactive lecture			X	
<ul style="list-style-type: none"> Discuss Ante's Law 							
<ul style="list-style-type: none"> Describe Types of Bridges 							
<ul style="list-style-type: none"> Describe Tilted Abutment Teeth Management 							

SECTION X: Implant Prosthodontics

Topic Weightage: 8%

Time Allocation: 02 weeks

Assessment items in Final Exam: 04 MCQs & 01 SAQ/ SEQ

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	VIVA	OSPE	NUMS MCQs	NUMS SEQs
61. Introduction to Implants	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture			X		
62. Osseointegration	Prof. Dr. Hina Zafar Raja	C	Interactive lecture			X		
<ul style="list-style-type: none"> Define osseointegration 								
<ul style="list-style-type: none"> Discuss Factors effecting ossteointegration 								
<ul style="list-style-type: none"> Discuss Osseointegration materials 								

63. Implant supported prosthesis	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture			X	02	01
<ul style="list-style-type: none"> Discuss Types of prosthesis Describe Components of implants 								
64. Impression making in implant dentistry	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture			X		
65. Abutment selection for implants	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture			X		
<ul style="list-style-type: none"> Discuss type of abutment Discuss selection criteria for abutment selection 								

SECTION XI: Defect Prosthodontics**Topic Weightage: 6%****Time Allocation: 01 week****Assessment items in Final Exam: 03 MCQs & 00 SAQ/ SEQ**

At the end of this session the students will be able to:

TOPICS AND OBJECTIVES	FACULTY	LEARNING DOMAIN (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	VIVA	OSPE	NUMS MCQs	NUMS SEQs
68. Introduction to maxillofacial Prosthodontics	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture	X				
<ul style="list-style-type: none"> Types of prosthesis for maxilla and mandible Major concerns of mandibular prosthesis 								

69. Introduction to maxillofacial Prosthodontics	Prof. Dr. Hina Zafar Raj	C		X			02	
• Classification								
70. Obturators	Dr. Muhammad Afzal	C	Interactive lecture	X				
• Classification of maxillary defects								
• Types								
• Indications and objective								

Practical Demonstrations:

A. Removable Partial Denture (RPDs)	
Topic	Facilitator
History & Examination of partially dentate patient	Dr. Muhammad Afzal
Impression making of partially dentate patient	Prof. Dr. Abdul Mueed Zaigham
Jaw relations (including facebow records)	Prof. Dr. Hina Zafar Raja
Articulation	Prof. Dr. Hina Zafar Raja
Surveying	Prof. Dr. Abdul Mueed Zaigham
Trial	Dr. Atiq Ur Reham
Insertion	Dr. Atiq Ur Reham
B. Complete denture prosthodontics	
History and examination of edentulous patient	Dr. Atiq Ur Rehman
Primary Impression	Prof. Dr. Abdul Mueed Zaigham
Secondary Impression	Prof. Dr. Hina Zafar Raja
Jaw Relation / Articulator	Prof. Dr. Abdul Mueed Zaigham
Tooth Setup	Dr. Muhammad Afzal
Trial	Dr. Atiq Ur Rehman
Insertion	Dr. Atiq Ur Rehman
C. Fixed partial denture (FPDs)	
Anterior All ceramic crown preparation	Prof. Dr. Abdul Mueed Zaigham
Posterior All ceramic crown preparation	Prof. Dr. Hina Zafar Raja

Learning resources:

Subject	Topics	Resources
Complete Denture Prosthodontics-I	Introduction to Patient Evaluation	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Introduction to Patient Evaluation	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Anatomy of edentulous mouth	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Sequelae of wearing complete denture	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Residual ridge reduction	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Patient preparation for complete denture treatment	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Biomechanics of edentulous state	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed..
	Physiology of mouth and saliva in relation to denture retention	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Recording impression in complete denture	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.

Complete denture Prosthodontics-II	Jaw relation records	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Occlusion	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
		<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Arrangements of teeth	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Arrangements of teeth in neutral zone	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
Complete denture Prosthodontics-III	Trial of complete dentures	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Immediate dentures	<ol style="list-style-type: none"> 3. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 4. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Overdentures	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Copy dentures	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Finishing of dentures, insertion	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed. 2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3rd Ed.
	Post insertion complaints and management	<ol style="list-style-type: none"> 1. Prosthodontic Treatment for Edentulous Patients By Zarb 13th Ed.

		2. Essentials of complete denture Prosthodontics By Sheldon Winkler 3 rd Ed.
Removable Partial Prosthodontics-I	Introduction to Removable partial denture	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Classification of partially edentulous arches	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Biomechanics of Removable Partial Dentures	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Major connectors	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Minor connectors	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Rests and Rest seat Preparation	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
Removable Partial Prosthodontics-II	Direct retainers / Precision attachment	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Indirect Retainers	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Denture Base Considerations	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Principles of Removable Partial Denture design	1. Removable Partial Prosthodontics By Mc 'Crackens 12 th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.

	Surveying	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
Removable Partial Prosthodontics-III	Diagnosis and Treatment Planning in RPDs	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Mouth preparations for RPD, abutment preparation	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 1. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Impression Materials and Procedures form Removable Partial Dentures	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Support for the Distal Extension Denture Base	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Occlusal Relationships for Removable Partial Dentures	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Initial Placement, Adjustment, and Servicing of the Removable Partial Denture	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Relining and Rebasing the Removable Partial Denture	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Repairs and Additions to Removable Partial Dentures	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Interim Removable Partial Dentures	<ol style="list-style-type: none"> 1. Removable Partial Prosthodontics By Mc 'Crackens 12th Ed. 2. Stewart's Clinical Removable Partial Prosthodontics 4th Ed.
	Introduction to Fixed Partial Denture	<ol style="list-style-type: none"> 1. Contemporary Fixed Partial Dentures 5th Ed.

Fixed Prosthodontics-I		2. Fundamentals of Fixed Prosthodontics, 4th Ed.
	PDI Classification	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Treatment Planning	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Principles of Occlusion	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Periodontal Considerations	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Crown Lengthening	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
Fixed Prosthodontics-II	Principles of Tooth Preparation	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Complete Cast Crown Preparation	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Metal - Ceramic Crown Preparation	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	All - Ceramic Crown Preparation	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Tissue Management & Impression Method	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Interim restorations	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Pontic Design	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Laboratory Procedure in FPD	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Investment and Casting	1. Contemporary Fixed Partial Dentures 5 th Ed.

Fixed Prosthodontics-III		2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Luting Agents and Cementation Procedures	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Resin Retain Fixed Partial Dentures	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
	Miscellaneous topic Related to FPDs	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4th Ed
Dental implants	Introduction to Implants	1. Dental implants prosthetics By Carl E Misch 2 nd Ed.
	Osseointegration	1. Dental implants prosthetics By Carl E Misch 2 nd Ed.
	Implant supported prosthesis	1. Dental implants prosthetics By Carl E Misch 2 nd Ed.
	Impression making in implant dentistry	1. Dental implants prosthetics By Carl E Misch 2 nd Ed.
	Abutment selection for implants	1. Dental implants prosthetics By Carl E Misch 2 nd Ed.
Defect Prosthodontics	Introduction to maxillofacial Prosthodontics	1. Prosthodontic Treatment for Edentulous Patients By Zarb 13 th Ed.
	Maxillary Obturators	1. Prosthodontic Treatment for Edentulous Patients By Zarb 13 th Ed.

OTHER LEARNING RESOURCES:

Hands- on Activities / Practical	Students will be involved in Practical sessions and hands-on activities that link the laboratory procedures to clinical procedures.
Labs	Utilize the lab provides the simulated learning to the models available.
Skills Lab	A skills lab provides the simulated learning experience to learn the basic skills and procedures.
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.

Summative assessment methods and policies:

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 submitted 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 internal assessment 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 (50%) and SAQs/SEQs (45%) for the year 2021. It may be changed after the approval of Academic Council.
- e. Allocated time for MCQs for 2021 examination shall be 50 minutes.
- f. Each MCQs shall have four distractors
- g. The distribution of SAQs/SEQs as well as MCQs for BDS annual examinations is as under: -

Sr. No	Topic	No of MCQs (30) (01 marks each)	No. of SEQs (09)
1	Removable partial denture	13 (13 marks)	03
2	Complete denture prosthodontics	13 (13 marks)	02
3	Fixed prosthodontics	12 (12 marks)	03

4	Implant Prosthodontics	04 (02 Marks)	01
5	Defect Prosthodontics	03 (03 Marks)	
Total		45 (45 Marks)	09 (45 Marks)
Grand Total		90 Marks	

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

- 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.
- 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.
- The Controller of Examinations shall approve the faculty for the final paper setting having fair representation of each college / institute.

Paper Assessment

- 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 OSCE/OSPE stations.
- 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.

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.

Academic Audit. The Vice Chancellor may get any academic matter deliberated in the manner as deemed appropriate.

Issue of Academic Transcript / Detailed Marks Sheet. A student desirous of obtaining Academic Transcript / Detailed Mark Sheet may apply to Controller of Examinations along with the prescribed fee for each original copy.

Academic Standard for Award of BDS. A candidate who has passed the final professional BDS examination from a NUMS constituent/affiliated institution shall be entitled to the Degree of Bachelor of Dental Surgery (BDS).

Table Of Specification (TOS) for Annual Examination – Theory
Final Professional BDS Examination (2021)
Prosthodontics

Time Allowed =03 hrs. (Including MCQs)

Marks of theory paper =90

Internal assessment =10

Total marks =100

Pass Marks =50

45 x MCQs (45 Marks) Time = 50 min (On Separate Sheet)

18 MCQs Recall Level

27 MCQs Application Level

09 x SAQs/SEQs

3 x SAQs/SEQs (Recall) = 05 marks each

6 x SAQs/SEQs (Application) = 05 marks each

Total Marks (45 Marks) Time = 2 hours & 10 min

Sr.No	Course Content	NUMBER OF MCQs = 45 (1 mark each)	NUMBER OF SAQs/SEQs = 09 (05 marks each)
1.	Complete denture prosthodontics-I	04	03
2.	Complete denture prosthodontics-II	04	
3.	Complete denture prosthodontics-III (Copy Denture, Immediate Denture, Overdenture) etc.	05	
4.	Removable partial prosthodontics-I	04	02
5.	Removable partial prosthodontics-II	04	
6.	Removable partial prosthodontics-III (Every denture and Spoon denture) etc.	05	
7.	Fixed Prosthodontics-I	04	03
8.	Fixed Prosthodontics-II	04	
9.	Fixed Prosthodontics-III	04	
10.	Implant Prosthodontics	04	01
11.	Defect Prosthodontics.	03	
Total		45 (45 Marks)	09 (45 Marks)

Internal Assessment Calculation – Theory

A	B	C	D	E	F	G	H
Roll No.	Name	1st Mid term	1st term	2nd Mid term	2nd term	Pre-Annual Exam	Total Marks of internal Assessment out of 10 (C+D+E+F+G) ÷ 360 x 10
		45 Marks	90 Marks	45 Marks	90 Marks	90 Marks	10 Marks

Table of Specification for Annual Examinations – Practical

VIVA 90 marks		Practical 90 marks		Total
Examiner 1	Examiner 2	Clinical Procedure e.g. Secondary Impression etc.	Laboratory Procedure e.g. Set-Up of teeth etc.	180 Marks
45 Marks	45 Marks	45 Marks	45 Marks	

Internal Assessment Calculation (Practical)

A	B	C	D	E	F	G
Roll No.	Name	Practical Quota Completion (Clinical evaluation, preliminary & secondary impressions) 50 % quantitative and 50% qualitative scoring	Practical Quota Completion (JRR, Set-up, Trial, Insertion, Follow-up.) 50 % quantitative and 50% qualitative scoring	End of Rotation Batch Test Score	Pre-annual (practical)	Total Marks of internal assessment Out of 20
		80 Marks	80 Marks	60 Marks		(C+D+E+F) ÷ 400 x 20
		80 Marks	80 Marks	60 Marks		20 Marks

Sample MCQs and SEQs

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

MCQ. Complete palate major connector is indicated:

- a) When the abutment teeth are canine as in class II situations
- b) When there is less resorption of the ridges
- c) Small size palatal torus exist
- d) When resistance has to be accomplished
- e) When anterior and posterior abutment teeth are widely separated

key: b

Short essay question (SEQs)

- 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 SEQ

SEQ. A) What materials can be used for bite registration for RPDs?

B) what are the advantages of using metallic oxide paste over wax as occlusal recording material?

KEY. A) Materials:

- Impression plaster
- Waxes
- Additional silicones
- Zinc Oxide Eugenol paste
- Polyethers
- Acrylic resins

B) Advantages of metallic oxide paste are,

- Uniformity of consistency
- Ease of displacement on closure
- Accuracy of occlusal surface reproduction
- Dimensionally stability
- Less likelihood of distortion during mounting procedure

Curriculum Map of Prosthodontics

