



Institute of Dentistry,

CMH Lahore Medical College

Study Guide

Department of Prosthodontics

(2022 – 2023)

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INTRODUCTION TO PROSTHODONTICS

In the final year, 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	Associate Dean / Professor/ HoD	BDS, FCPS Prosthodontics
2	Prof. Dr. Hina Zafar Raja	Professor	BDS, FCPS Prosthodontics
3	Dr. Muhammad Afzal	Assoc. Professor	BDS, FCPS Prosthodontics
4	Dr. Atiq Ur Rehman	Asst. Professor	BDS, MCPS Family Dentistry, FCPS Prosthodontics
5	Dr. Saira Ibrahim	Senior Registrar	BDS, FCPS Prosthodontics
6	Dr. Khalid Yaqub	Senior Registrar	BDS, FCPS Prosthodontics
7	Dr. Hurria Shafi	Demonstrator	BDS
7	Dr. Ummara Manzoor	Post Graduate Resident	BDS
8	Dr. Ayesha Noor	Post Graduate Resident	BDS
9	Dr. Yusra Ijaz	Post Graduate Resident	BDS
10	Dr. Talha	Post Graduate Resident	BDS
11	Dr. Daniyal Dar	Post Graduate Resident	BDS
12	Dr Ali Kamran	Post graduate resident	BDS
13	Dr Khizer Aftab	Post Graduate Resident	BDS
14	Dr Momena Zeb	Post Graduate Resident	BDS
15	Dr Ahmer Mohsin	Post Graduate Resident	BDS
16	Dr Gull e Dawoodi	Post Graduate Resident	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 PowerPoint presentation
- Group discussions in form of a 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 effective 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 a 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 the hospital or clinical settings. This helps students to relate knowledge of basic and clinical sciences to the relevant module.

SMALL GROUP DISCUSSION (SGD): This format helps students to clarify concepts acquire skills or attitudes, sessions are structured with the help of specific exercises such as patient cases, interviews, or discussion topics. 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 questions 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 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 sources 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 the "best" solution out of the 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's related to prosthodontics are scheduled for student learning.

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

SELF DIRECTED STUDY: Students assume responsibilities of their 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-L EARNING: 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. The implementation process helps the learner to achieve the 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 must be an implementing agent as well. A 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, the 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 that 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. Saira Ibrahim (Senior Registrar)
 Dr. Khalid Yaqub (Senior Registrar)

(ii) Registrar for clinics/practical and small group discussion sessions:
 Dr. Saira Ibrahim, Dr. Khalid Yaqub, Dr. Hurria Shafi

(iii) Support staff: as 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 9:40 am)

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

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

Friday (10:00 to 3:00 pm including Jumma break 12:40 pm to 1:15 pm)

Self-study: 5-6 hours per week

COURSE OBJECTIVES AND STRATEGIES:**SECTION I: Complete denture Prosthodontics-I****Topic Weightage: 10%****Time Allocation: 03 weeks****Assessment items in Final Exam: 20 MCQs & 03 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	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture													
<ul style="list-style-type: none"> Describe Mental classification Discuss Influence of patient's demographic data on treatment planning 																
2. Anatomy of edentulous mouth	Dr. Saira Ibrahim	C	Interactive lecture	X												
<ul style="list-style-type: none"> Describe Denture Bearing areas Describe Maxillary Anatomical Landmarks Describe Mandibular anatomical landmarks Describe Intraoral Biometric guides 																
3. Sequelae of wearing complete denture									Dr. Atiq ur Rehman	C	Interactive lecture					
<ul style="list-style-type: none"> Discuss Direct sequelae: Denture Stomatitis, burning mouth syndrome Discuss Indirect sequelae 																
4. Residual ridge reduction	Dr Atiq ur Rehman	C	Interactive lecture				X									

<ul style="list-style-type: none"> Describe Etiological factors of RRR 	Raja							
5. Patient preparation for complete denture treatment	Dr. Atiq ur Rehman	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. Abdul Mueed Zaigham	C	Interactive lecture	X				
<ul style="list-style-type: none"> Describe the 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 affecting esthetics, lower facial height and temporomandibular Joint 								

SECTION II: Complete denture Prosthodontics-II**Topic Weightage: 10%****Time Allocation: 03 weeks****Assessment items in Final Exam: 20 MCQs & 03 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	Prof Dr. Abdul Mueed Zaigham	C	Interactive lecture	X				
<ul style="list-style-type: none"> What Factors affect 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 								

<ul style="list-style-type: none"> Discuss Orientation relation records/ Facebow 	Dr. Muhammad Afzal	CPA	Interactive lecture/ practical			X		
<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	Prof Dr. Hina Zafar	C	Interactive lecture	X				
<ul style="list-style-type: none"> Discuss Theories of occlusion 								
<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	Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture			X		
<ul style="list-style-type: none"> Dentogenic concept Utilization of biometric guides 								
14. Arrangement of anterior teeth	Dr. Atiq ur Rehman	CPA	Interactive lecture/ Skill			X		
<ul style="list-style-type: none"> Describe Relations of teeth in accordance 								

with five planes and esthetic guidelines								
<ul style="list-style-type: none"> Describe Relations of teeth in accordance with five planes and biometric guidelines 								
15. Arrangement of teeth in Neutral Zone								
<ul style="list-style-type: none"> Describe Arrangement with neutral zone concept 	Dr. Atiq ur Rehman	CPA	Interactive lecture/ practical			X		
<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: 06 weeks

Assessment items in Final Exam: 20 MCQs & 03 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. Khalid Yaqub	CPA	Interactive lecture/ practical			X		
<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	Dr. Khalid Yaqub	CPA	Interactive lecture					
<ul style="list-style-type: none"> Describe Case 								

Selection for immediate dentures								
<ul style="list-style-type: none"> Describe Clinical steps 								
18. Overdentures	Dr. Saira Ibrahim	C	Interactive lecture					
<ul style="list-style-type: none"> Discuss Clinical procedure Discuss Management 								
19. Copy dentures	Dr. Saira Ibrahim	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 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 Describe Steps of insertion procedure Discuss Instruction to patient for prosthesis maintenance Denture cleaning aids and procedures 								
22. Post insertion complaints and management	Dr. Atiq ur Rehman	CPA	Interactive lecture/ Skill					
<ul style="list-style-type: none"> Discuss Types of complaints Discuss Symptoms of these complaints Discuss Management 								

of these complaints								
23. Relining of complete dentures	Dr. Khalid Yaqub							
<ul style="list-style-type: none"> Define the terminologies 								
<ul style="list-style-type: none"> Indications and Differentiation 								
<ul style="list-style-type: none"> Laboratory Procedures 								

SECTION IV: Removable Partial Prosthodontics-I

Topic Weightage: 9%

Time Allocation: 06 weeks

Assessment items in Final Exam: 17 MCQs & 02 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	Dr Atiq ur Rehman	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 Prosthesis 								
<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						X		

<ul style="list-style-type: none"> • What are the Requirements of an Acceptable Method of classification 	<p>Dr. Atiq ur Rehman</p>	<p>C</p>	<p>Interactive lecture / small group discussion</p>					
<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	Prof Dr. Abdul Mueed Zaigham	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. Atiq Ur Rehman	C	Interactive lecture / small group discussion					
<ul style="list-style-type: none"> Describe Role of Major Connectors in Control of Prosthesis movement What are the types of maxillary and mandibular major connectors 								
27. Minor connectors	Dr. Atiq ur Rehman	C	Interactive lecture / small group discussion				X	
<ul style="list-style-type: none"> Describe form and location of the minor connector What is the function of minor connector 								
28. Rests and Rest seat Preparation	Dr. Muhammad Afzal	C	Interactive lecture					
<ul style="list-style-type: none"> Describe the role of Rests in control of Prosthesis movement What is the Form of the Occlusal Rest and Rest Seat 								

• Describe Extended Occlusal Rest								
• Describe Interproximal Occlusal Rest Seats?								
• Describe Internal Occlusal Rest								
• How Implants acts as a Rest								
• Describe Support for Rests								
• Describe Lingual Rests on Canines and Incisor Teeth								
• Describe Incisal Rests and Rest Seats								

SECTION V: Removable Partial Prosthodontics-II

Topic Weightage: 9%

Time Allocation: 06 weeks

Assessment items in Final Exam: 17 MCQs & 03 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
<p>29. Direct retainers / Precision attachment</p> <ul style="list-style-type: none"> Describe Direct Retainer’s Role in Control of Prosthesis movement Describe types of Direct Retainers What are the Criteria for Selecting a Given Clasp Design Describe types of Clasp Assemblies 	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture/ Skill					

<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								
<ul style="list-style-type: none"> • Describe Role of Indirect Retainers in Control of Prosthesis Movement 		C	Interactive lecture			X		
<ul style="list-style-type: none"> • What Factors Influence Effectiveness of Indirect Retainers 	Prof. Dr. Abdul Mueed Zaigham							
<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 								
31. Denture Base Considerations								
<ul style="list-style-type: none"> • Describe Functions of Denture Bases in Control of Prosthesis Movement 	Prof. Dr. Hina Zafar Raja	C	Interactive lecture	X				
<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 		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 	Prof. Dr. Abdul Mueed Zaigham							
<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 								
<ul style="list-style-type: none"> • Discuss Additional Considerations Influencing Design 								
33. Surveying								
<ul style="list-style-type: none"> • Describe Dental Surveyor 		CPA	Interactive lecture / Skill	X				
<ul style="list-style-type: none"> • What are the Purposes of the Surveyor 								
<ul style="list-style-type: none"> • Discuss Factors that Determine Path of Placement and Removal 	Dr. Muhammad Afzal							
<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 Block out, Arbitrary block out, and Relief 								
34. Diagnosis and Treatment Planning in RPDs								
<ul style="list-style-type: none"> What is the 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: 12 weeks

Assessment items in Final Exam: 17 MCQs & 03 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	Prof. Dr. Hina Zafar Raja	CPA	Interactive lecture / Skill			X		
<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 								
<ul style="list-style-type: none"> Describe Optimization of the Foundation for Fitting and Function of the Prosthesis 								
<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 								
36. Impression Materials and Procedure's form Removable Partial Dentures	Prof Dr. Hina Zafar	CPA	Interactive lecture			X		
<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.		Interactive			X		

<ul style="list-style-type: none"> Describe Distal Extension Removable Partial Denture 	Abdul Mueed Zaigham	C	lecture / small group discussion					
<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	Dr Muhammad Afzal	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 Rebasing the Removable Partial Denture	Dr. Saira Ibrahim	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 								
41. Repairs and Additions to Removable Partial Dentures	Dr. Saira Ibrahim	CPA	Interactive lecture		X			
<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 								
42. Interim Removable Partial Dentures								
<ul style="list-style-type: none"> Discuss Importance of Appearance 	Dr. Khalid Yaqub	C	Interactive lecture			X		
<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 								
Describe importance of Interim Restoration During Treatment								
<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: 05 weeks**Assessment items in Final Exam: 23 MCQs & 03 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	Prof Dr. Hina Zafar Raja	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: 05 weeks

Assessment items in Final Exam: 23 MCQs & 03 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	Prof. Dr. Abdul Mueed	CPA	Interactive lecture			X	02	01

<ul style="list-style-type: none"> Discuss Biological considerations 	Zaigham							
<ul style="list-style-type: none"> Discuss Mechanical considerations 								
<ul style="list-style-type: none"> Discuss Esthetic considerations 								
50. Complete Cast Crown Preparation	Dr. Atiq ur Rehman	CPA	Interactive lecture/ Practical				X	
<ul style="list-style-type: none"> Discuss Advantages/ disadvantages 								
<ul style="list-style-type: none"> Discuss Indications / Contra indication 								
<ul style="list-style-type: none"> Describe Preparation guidelines 								
51. Metal - Ceramic Crown Preparation	Dr. Khalid Yaqub	CPA	Interactive lecture/ Practical					
<ul style="list-style-type: none"> Discuss Advantages/ disadvantages 								
<ul style="list-style-type: none"> Discuss Indications / Contraindications 								
<ul style="list-style-type: none"> Describe Preparation guidelines 								
52. All-Ceramic Crown Preparation	Dr. Saira Ibrahim	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	Prof. Dr. Abdul Mueed	CPA	Interactive lecture /					

Method	Zaigham		Practical					
• Describe tissue Displacement								
• Describe Electro surgery								
• Describe Impression making	Dr. Khalid Yaqub	C	Interactive lecture / Skill			X		
54. Interim restorations								
• Discuss Materials & Techniques								
• Discuss Ante's Law								
• Describe Types of Bridges								
• Describe Tilted Abutment Teeth Management								

SECTION IX: Fixed Prosthodontics-III**Topic Weightage: 8%****Time Allocation: 05 weeks****Assessment items in Final Exam: 23 MCQs & 03 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		
• Discuss Biological / esthetic / mechanical considerations								
• Describe Pontic classification	Dr. Muhammad Afzal	C	Interactive lecture/ Skill	X				
56. Laboratory Procedure in FPD								
• Describe Cast & dies								

<ul style="list-style-type: none"> Describe Wax patterns 								
<ul style="list-style-type: none"> 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 								
<ul style="list-style-type: none"> Discuss Casting procedure 								
<ul style="list-style-type: none"> Discuss Casting defects 								
58. Luting Agents and Cementation Procedures	Dr. Saira Ibrahim	C	Interactive lecture	X				
<ul style="list-style-type: none"> Discuss Different types of types of cement 								
<ul style="list-style-type: none"> 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	Dr. Saira Ibrahim	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: 08 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 osseointegration 								
<ul style="list-style-type: none"> Discuss Osseointegration materials 								
63. Implant supported prosthesis	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture			X		
<ul style="list-style-type: none"> Discuss Types of prosthesis 								
<ul style="list-style-type: none"> 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 								
<ul style="list-style-type: none"> Discuss selection criteria for abutment selection 								

SECTION XI: Defect Prosthodontics**Topic Weightage: 6%****Time Allocation: 01 week****Assessment items in Final Exam: 08 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
68. Introduction to maxillofacial Prosthodontics	Prof. Dr. Abdul Mueed Zaigham	C	Interactive lecture	X			02	
<ul style="list-style-type: none"> Types of the prosthesis for maxilla and mandible Major concerns of mandibular prosthesis 								
69. Introduction to maxillofacial Prosthodontics	Prof. Dr. Hina Zafar Raja	C		X			02	
<ul style="list-style-type: none"> Classification 								
70. Obturators	Dr. Muhammad Afzal	C	Interactive lecture	X			02	
<ul style="list-style-type: none"> Classification of maxillary defects Types Indications and objective 								

Practical Demonstrations:

A. Removable Partial Denture (RPDs)	
Topic	Facilitator
History & Examination of the 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	Dr. Muhammad Afzal
Surveying	Prof. Dr. Abdul Mueed Zaigham
Trial	Dr. Atiq Ur Reham
Insertion	Dr. Atiq Ur Reham
B. Complete denture prosthodontics	
History and examination of an edentulous patient	Dr. Khalid Yaqub
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. Atiq ur Rehman
Trial	Dr. Saira Ibrahim
Insertion	Dr. Saira Ibrahim
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 a 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. 2. Fundamentals of Fixed Prosthodontics, 4th

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

Fixed Prosthodontics-III		Ed
	Luting Agents and Cementation Procedures	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4 th Ed
	Resin Retain Fixed Partial Dentures	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4 th Ed
	Miscellaneous topic Related to FPDs	1. Contemporary Fixed Partial Dentures 5 th Ed. 2. Fundamentals of Fixed Prosthodontics, 4 th 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	Videos familiarize the student with the procedures and protocols to assist Patients
Computer Lab/ CSs/DVDs/ Internet Resources:	To increase their knowledge, students should utilize the available internet resources and CDs/ DVDs. This will be an added 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 the Principal, a summary as per university registration number shall be submitted to the Controller of Examinations, at least two weeks before the commencement of the 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 the subsequent year
- f. Internal assessment tools of any subject may be changed after the approval of the respective FBS

Annual Examination

- a. The weightage of the Annual Examination shall be 80%, each for theory and practical, in BDS.
- b. The examination comprises of a theory paper and practical/clinical examinations as per PMDC 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: 60 MCQs and 8 SAQs/SEQs for the year 2023. It may be changed after the approval of the Academic Council.
- e. Allocated time for MCQs (60 MCQ's) for the 2023 examination shall be 60 minutes and for SEQ's/SAQs (8) will be 120 minutes
- f. The Details are given in the TOS given at the end.

Internal Examiner

He/she shall be Professor and Head of Department who has been involved in the teaching of the class being examined for at least six months and has delivered 50% of the total lectures. The second preference shall be Associate/Assistant Professor who is involved in the teaching of the class and posted there for one year. The 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 of 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, grandson, 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 with 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 the final paper setting.
- b. The set of question papers shall be prepared by the respective Head of Department (HoD) and furnished to the Controller of Examinations through the Head of Institution.
- c. The Controller of Examinations shall approve the faculty for the final paper setting having a 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 a 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 practical/clinical examination, the candidates may be divided into subgroups by the examiners.
- f. The assessment of the practical/clinical examination duly signed by the internal & external examiner shall be furnished to the Controller of Examinations within one week of the conclusion of the 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 the 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 an Academic Transcript / Detailed Mark Sheet may apply to the 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).

Final Professional BDS Examination (2023)
PROSTHODONTICS

Marks of theory paper = 80
 Time Allowed = 03 hrs
 Internal assessment (20%) = 20
Total Marks (MCQs:40%+SEQs:40%+IA:20%) = 100

Pass Marks = 50

Paper-1: (*Marks of MCQ component shall be rationalized to 40% weightage)

60 x MCQs (1 mark each) (60 Marks) Time =60 min

Paper-2:

8x SEQs/SAQs (05 Marks Each) (40 Marks) Time = 120 min

*If a candidate obtains 50 marks in MCQs it will be rationalized as: $(50/60 \times 40 = 33.33)$

Ser	Topics	Sub topics	Number. of MCQs (60)		No. of SEQs/SAQs (08) (8x5 Marks) 40
			Recall :20	Application :40	
1.	Complete Denture Prosthodontics - I	<ul style="list-style-type: none"> • Introduction to Patient Evaluation • Management of Edentulous Patients (history taking, treatment planning and improving denture bearing areas) • Anatomy of edentulous mouth • Sequelae of wearing complete denture • Patient preparation for complete denture treatment • Biomechanics of edentulous state 			
2.	Complete Denture Prosthodontics -II	<ul style="list-style-type: none"> • Physiology of mouth and saliva in relation to denture retention • Recording impression in complete denture • Occlusion • Selection of artificial teeth • Arrangement of artificial teeth • Neutral Zone Concept 	07	13	03
3.	Complete Denture Prosthodontics -III	<ul style="list-style-type: none"> • Trial of complete dentures • Assessment of trial of complete denture • Immediate dentures • Overdentures • Copy dentures 			

		<ul style="list-style-type: none"> • Speech considerations of complete denture • Remodeling • Finishing of dentures, insertion • Post insertion complaints and management • Single Dentures • Occlusion in complete denture (adjustment and types) 			
4.	Removable partial prosthodontics - I	<ul style="list-style-type: none"> • Introduction to Removable partial denture • Classification of Partially Edentulous Arches • Biomechanics of RPD • Major connectors • Minor connectors • Rests and Rest seat Preparation 			
5.	Removable partial prosthodontics -II	<ul style="list-style-type: none"> • Direct retainers /Precision attachment • Indirect Retainers • Denture Base considerations • Principles of RPD Design • Surveying • Diagnosis and Treatment Planning in RPDs 	05	12	02
6.	Removable partial prosthodontics -III	<ul style="list-style-type: none"> • Management of Partially Dentate Patient • Mouth preparation for RPD • Impression for RPD • Lab Procedures for RPD • Dentures Support for the Distal Extension Denture Bases • Occlusal Relationships for RPD • Initial Placement, Adjustment, and Servicing of the RPD • Relining and Rebasing the RPD • Repairs and Additions to RPD • Insertion, follow up for RPD • Interim RPD 			

		<ul style="list-style-type: none"> • Flexy dentures • Immediate RPD and Its considerations 			
7.	Fixed Prosthodontics - I	<ul style="list-style-type: none"> • Introduction to Fixed Partial Denture • History and Examination • Treatment Planning • Principles of Occlusion • Periodontal Considerations • Crown Lengthening 			
8.	Fixed Prosthodontics -II	<ul style="list-style-type: none"> • Principles of Tooth Preparation • Post & Core Buildups • Crown Preparation <p>The Complete Cast Crown Preparation The Metal - Ceramic Crown Preparation The All - Ceramic Crown Preparation</p> <ul style="list-style-type: none"> • Tissue Management • Impression making 	05	10	02
9.	Fixed Prosthodontics -III	<ul style="list-style-type: none"> • Interim restorations • Pontic Design • Luting Agents and Cementation Procedures • Resin Retain Fixed Partial Dentures • Management of complications 			
10.	Implant Prosthodontics	<ul style="list-style-type: none"> • Introduction to Implants • Treatment Planning • Implant supported prosthesis • Impression making in implant dentistry • Types of Implant Abutments 			
11.	Maxillofacial Prosthodontics	<ul style="list-style-type: none"> • Introduction to maxillofacial prosthodontics • Classification of maxillary defects • Obturators <p>a) Types b) Indications and objectives</p>	03	05	01
12.	Digital Dentistry /Advanced Topics	<ul style="list-style-type: none"> • Introduction • CAD/CAM • 3D printing, milling • Intraoral scanners • Cone beam computed tomography (CBCT) 			
Total			20	40	08 (40 Marks)
			60 (60 Marks)		

Table of Specification for Clinical Examinations & Viva Voce

VIVA 70 marks		Practical (Laboratory + Clinical Components)90 marks				Total
Internal Examiner	External Examiner	Laboratory Component	Clinical Component	OSPE # 1	OSPE # 2	160 Marks
35	35	35	35	10	10	

- 1- Laboratory Component may include teeth setup, clasp making or any type of wax up etc.
- 2- Clinical Component may include impressions (Primary or secondary), RPD designing, Jaw relation or crown cementation etc.
- 3- TWO interactive OSPE stations, to cover the left out but important aspects of the clinical competency/outcomes e.g. Fixed Prosthodontics, Implantology, digital dentistry etc. These stations will be formulated locally with the mutual

INTERNAL ASSESSMENT - THEORY	
INTERNAL ASSESSMENT WEIGHTING: 20%	
Exam s	Weightings
Attendance in Lectures: a. $\geq 90\%$ = 10% b. 80-89% = 7% c. 75-79% = 5%	10%
End of Block/ clinical rotation (theory) Examination	45%
Continuous assessment (average score of all tests attempted after every learning session during the academic year)	20%
Pre-Annual Exam	25%
Total	100%
INTERNAL ASSESSMENT STRUCTURE - PRACTICAL	
INTERNAL ASSESSMENT WEIGHTING: 20%	
Exam s	Weightings
Attendance in Practicals: a. $\geq 90\%$ = 10% b. 80-89% = 7% c. 75-79% = 5%	10%
*End of Block/ clinical rotation (OSCE) Examination	45%
*Continuous assessment of practical/ clinical skills and attitude	20%
Pre-Annual Exam	25%
Total	100%

Curriculum map of Prosthodontics

