FOUNDATION UNIVERSITY COLLEGE OF DENTISTRY – ISLAMABAD

DEPARTMENT OF PROSTHODONTICS

Study Guide for Final Year BDS

Updated in 2025

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Introduction to Prosthodontics

Prosthodontics is the dental specialty that deals with the provision of artificial substitutes for missing or deficient teeth and/or maxillofacial tissues. This branch of dentistry is one of the most difficult and tough subjects of the final year curriculum as it encompasses both clinical work and practical/laboratory work. The basic aim of this course is to impart necessary knowledge and practical working experience related to complete dentures, partial dentures, and crowns and bridges in order to enable the students to become future general dental care providers.

Components of the Prosthodontics Course:

The course of Prosthodontics will comprise of the following main components:

1. **Complete Denture Prosthodontics:** This component of the Prosthodontics course is aimed at preparing the final year students for clinical and laboratory work related to complete denture therapy for the edentulous or potentially edentulous patients. Efforts will be made to impart the knowledge in a clinically oriented manner for better understanding of the students.
2. **Partial Denture Prosthodontics:** This component of the Prosthodontics course is aimed at providing pertinent knowledge to final year students for rehabilitation of partially edentulous patients with the help of acrylic removable partial dentures. The clinical and laboratory component of this course will be covered in third year during departmental rotations and the major chunk of its theoretical aspects will also be covered in third year through interactive lectures. Students will be given the opportunity to work on or observe the procedures related to provision of cast partial dentures to understand its component parts, their role, and relevant technical information.
3. **Fixed Prosthodontics:** This component of the Prosthodontics course is aimed at providing the subject knowledge related to fixed restorations primarily crowns and bridges. Students will be trained at a preclinical level on phantom heads to develop necessary skills related to tooth preparations, thereby paving the way for them to work on clinical cases in the subsequent house job and future careers.
4. **Implant Prosthodontics:** This component of the Prosthodontics course is aimed at providing baseline theoretical knowledge related to the subject matter. It is aimed at

introducing the science of dental implantology with emphasis on prosthodontic rehabilitation options.

5. **Maxillofacial Prosthodontics:** This component of the Prosthodontics course deals with basic introduction to the clinical situations requiring defect prostheses. Only the baseline knowledge will be communicated so that students can identify the clinical conditions requiring various types of defect prostheses.

Course Organization and Main Topics:

Each component of the Prosthodontics course will be further subdivided into course units and each course unit will comprise of several lecture topics. It is hoped that this division of the coursework will make it easy for both the students in understanding and the faculty in delivering the lectures throughout the academic calendar. Additionally, both formative and summative assessments of the students will also be based on these course units.

(Continued on next pages)

Complete Denture Prosthodontics		
No.	**Course Unit**	**Topics**
1.	Introduction	• Introduction to Prosthodontics • Tooth loss and aging • Introduction to complete denture prosthodontics
2.	Applied anatomy	• Introduction to anatomy of denture bearing areas • Mandibular denture bearing areas • Maxillary denture bearing areas
3.	Impression procedures for the edentulous patients	• Introduction to impressions and impression theories • Steps of impression making for edentulous patients • Preliminary impressions • Custom trays • Border molding • Final impressions • Final cast fabrication
4.	Jaw relationships	• Introduction to jaw relationships • Orientation relation and face bows • Vertical relation • Horizontal relation
5.	Mounting and tooth setup	• Articulators • Mounting procedures • Tooth selection for edentulous patients • Tooth arrangement • Occlusion for edentulous patients • Occlusal schemes • Try-in • Final waxup and festooning • Laboratory processing
6.	Insertion and postinsertion phase	• Insertion of complete dentures • Postinsertion instructions for the edentulous patient • Postinsertion complaints and management • Sequelae caused by wearing dentures
7.	Miscellaneous topics	• Immediate dentures • Over-dentures • Single complete denture • Relining and rebasing

Partial Denture Prosthodontics		
No.	**Course Unit**	**Topics**
1.	Introduction	• Introduction to partial denture prosthodontics and its scope • Tooth loss and its consequences • Classification of partially edentulous arches • Clasp-retained partial dentures • Interim partial dentures
2.	Applied anatomy	• Introduction to anatomy of denture bearing areas • Mandibular denture bearing areas • Maxillary denture bearing areas
3.	Component parts of cast partial dentures	• Introduction • Major connectors • Minor connectors • Rests and rest seats • Direct retainers • Indirect retainers • Denture bases
4.	Treatment planning	• Diagnosis and treatment planning for partially edentulous patients • Surveying • Support for distal extension bases • Principles of partial denture designing • Occlusal relationships for partial dentures
5.	Clinical procedures	• Mouth preparations • Preparations for abutment teeth • Initial placement and adjustments • Repairs and additions to partial dentures

Fixed Prosthodontics		
No.	**Course Unit**	**Topics**
	Introduction	• Introduction to fixed prosthodontics • Prescribing the prosthodontic service
	Diagnosis and treatment planning	• Diagnosis and treatment planning for the fixed prosthodontic patient • Selection of abutment teeth • Principles of tooth preparation
	Clinical procedures	• Complete cast crown preparation • Metal-ceramic crown preparation • All-ceramic crown preparation • Resin-bonded fixed dental prostheses • Tissue management and impression procedures • Interim fixed prostheses
	Miscellaneous topics	• Pontic design • Shade selection • Retainers for fixed prostheses • Luting cements and cementation procedures

Implant Prosthodontics		
No.	**Course Unit**	**Topics**
1.	Introduction to dental implantology	• Relevant definitions • Classification of dental implants • Parts of an implant/implant body • Prosthetic components
2.	Prosthodontic treatment options with endosteal implants	• Classification of various types of implant prostheses • Indications for various types of implant prostheses • Advantages and disadvantages of various types of implant prostheses • Maladaptive denture response
3.	Osseointegration and associated factors	• Relevant definitions • Osseointegrated interface • Factors associated with success and failure of osseointegrated implants

Maxillofacial Prosthodontics		
No.	**Course Unit**	**Topics**
1.	Introduction to maxillofacial prosthodontics	• Relevant definitions • Scope of partial dentures in maxillofacial rehabilitation • Classification of maxillofacial defects • Classification of maxillofacial defect prostheses
2.	Treatment planning	• Timing of maxillofacial prosthodontic work • Maxillary defect prostheses • Mandibular defect prostheses • Surgical obturator • Interim obturator • Definitive obturator

Teaching and Learning Strategies:

A variety of teaching and learning strategies will be used to cover the course contents in line with modern requirements of medical education. For this, the following will be used:

- **Interactive lectures (Large Group Interactive Session-LGIS):** For covering the major portion of academic coursework in predefined course units, one unit at a time, to be delivered by the teaching faculty.
- **Small group discussions (SGDs):** For covering some of the topics in coursework through encouraging the students to prepare a given topic and then discuss among themselves in smaller groups. This activity is hoped to generate interest in learning the subject matter.
- **Clinical demonstrations/chair-side teaching (CST):** For covering the clinical component of the course. Students will be facilitated by clinical demonstrators under guidance of teaching faculty. Students will not only understand the clinical work but also the dynamics of patient handling and communication.
- **Laboratory demonstrations (Lab Demo):** For covering the practical/laboratory processing of clinical cases. Students will be facilitated by demonstrators with or without supervision of the teaching faculty on various steps involved in fabrication of the required prostheses. The lab work will also be facilitated by laboratory technicians for covering some of the technically challenging tasks.
- **DOPS (Direct Observation of Procedural Skills):** For assessing the competency of students in various clinical and laboratory steps involved in prosthesis fabrication. For this purpose, specific criteria have been developed as mentioned in departmental logbooks.

Required Clinical/Preclinical Quota in Final Year:

- Three (03) complete denture cases (whether conventional, over- or immediate denture), with all clinical and laboratory steps of fabrication. This will be a compulsory component.
- Three (03) ideal model cases (from record base fabrication to tooth setup only). This is a major component aimed at training the students for handling the lab work if clinical cases.
- Five (05) posterior crown preparations on phantom heads (at preclinical level) to give exposure to clinical procedures of fixed prosthodontics

Required Clinical/Preclinical Quota in Third Year:

- Ten (10) removable acrylic partial dentures (whether conventional, over- or immediate denture), with all clinical and laboratory steps of fabrication. This will be a compulsory component.
- Three (03) ideal model cases (from wax-up of the base up to tooth setup only). This is a major component aimed at training the students to handle the lab work of clinical cases.

Teaching Faculty

The following teaching faculty of the Department of Prosthodontics shall be responsible for conducting various teaching sessions and assessing student performance in preclinical exercises and clinical cases:

• In-charge	HOD Prosthodontics	Prof. Dr. Salman Ahmad
• Team members	Associate Professor	Dr. Shoaib Rahim
	Assistant Professor	Dr. Saad Mansoor
	Demonstrators	1) Dr. Muhammad Ismail
		2) Dr. Fatima Mamoon
	PGTs	As assigned

Main Learning Outcomes:

For Complete Denture Prosthodontics:

By the end of this course, a final year student shall be able to:

1. Narrate the steps involved in complete denture fabrication
2. Explain the theoretical concepts of complete denture fabrication
3. Approach the edentulous patient with standardized protocols of clinical therapy
4. Record the relevant findings in medical history, dental history, clinical and radiographic examination
5. Formulate a treatment plan based on the initial diagnosis
6. Perform the clinical steps of complete denture fabrication confidently and independently (initial impression, final impression, jaw relationship recording, clinical try-in and insertion)
7. Perform the laboratory steps of complete denture fabrication confidently and independently (fabrication of initial cast, custom trays, final casts, record bases, occlusion rims; mounting on semi-adjustable articulator; tooth setup; final waxup; final processing; finishing and polishing of the prostheses)

For Partial Denture Prosthodontics:

By the end of this course, a final year student shall be able to:

1. Narrate the steps involved in partial denture fabrication
2. Explain the theoretical concepts of partial denture fabrication
3. Differentiate between acrylic and cast partial dentures
4. Approach the partially edentulous patient with standardized protocols of clinical therapy
5. Record the relevant findings in medical history, dental history, clinical and radiographic examination
6. Perform the clinical steps of acrylic partial denture fabrication confidently and independently (impressions, jaw relationship recording, clinical try-in and insertion)
7. Perform the laboratory steps of acrylic partial denture fabrication confidently and independently (fabrication of casts, custom trays, record bases, occlusion rims; mounting on plane articulator; tooth setup; final waxup; final processing; finishing and polishing of the prostheses)

8. Narrate the component parts of a cast partial denture
9. Describe the main functions of different component parts of a cast partial denture
10. Perform surveying on partially edentulous arches
11. Perform designing of cast partial dentures

For Fixed Prosthodontics:

By the end of this course, a final year student shall be able to:

1. Explain the theoretical concepts of tooth preparation in terms of biologic, mechanical and esthetic principles
2. Discuss relevant information regarding types of pontics and their selection criteria
3. Record the relevant findings in medical history, dental history, clinical and radiographic examination
4. Formulate a treatment plan based on the initial diagnosis
5. Narrate the steps involved in posterior tooth/crown preparation
6. Perform a posterior crown preparation on phantom tooth independently

For Implant Prosthodontics:

By the end of this course/topic, a final year student shall be able to:

1. Name the component parts of an implant system
2. Identify various parts of the implant
3. Identify the various types of implant abutments
4. Summarize various treatment options involving implants
5. Describe the concept of osseointegration

For Maxillofacial Prosthodontics:

By the end of this course/topic, a final year student shall be able to:

1. Identify and classify intra-oral and extra-oral defects
2. Narrate the types of defect prostheses
3. Enumerate the reasons for various types of defects

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
1	Introduction to Prosthodontics, and Tooth loss and its consequences	• Define the main terminologies • Enumerate the divisions of Prosthodontics • Discuss the role of each division • Discuss the relationship of tooth loss with aging • Outline the consequences of tooth loss	• LGIS	• MCQs • SEQs
2	Introduction to complete dentures	• Define the term "Complete denture" • Enumerate the parts of a complete denture • Enumerate the surfaces of a complete denture • Interpret the role/significance of each part i.e. denture flange, denture border, denture base, denture teeth • Interpret the role/significance of each surface i.e. impression surface, occlusal surface, polished surface • Summarize the indications for providing a complete denture • Enlist the steps of fabrication of a complete denture	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**

3	Anatomy of denture bearing areas-I: General concepts, and anatomy of maxillary denture bearing area	• Define the term "Denture bearing area"
		• Name the divisions of denture bearing areas
		• State the significance of stress bearing areas, peripheral areas and relief areas
		• Name and identify the bony foundation/structures of maxillary arch
		• Name and identify the soft tissue landmarks
		• Classify the structures according to divisions of denture bearing area
		• Summarize the definition, anatomical relations and significance of each of the following structures:
		  ○ Hard palate
		  ○ Malar surface
		  ○ Zygomaticoalveolar crest
		  ○ Residual alveolar ridge
			• LGIS	• MCQs
				• SEQs
				• OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
4	Anatomy of denture bearing areas-II: Maxillary arch (continued)	• Summarize the definition, anatomical relations and significance of each of the following structures: ○ Incisive papilla ○ Rugae ○ Mid palatine raphe ○ Palatine torus ○ Maxillary tuberosity ○ Vibrating line ○ Palatine fovea ○ Hamular notch ○ Residual ridge ○ Labial sulcus ○ Buccal sulcus ○ Labial frenum ○ Buccal frenum ○ Zygomatic buttress ○ Palatine submucosa	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**

5	Anatomy of denture bearing areas-III: Mandibular arch	• Name and identify the bony foundation/structures
		• Name and identify the soft tissue landmarks
		• Classify the structures according to divisions of maxillary denture bearing area
		• Summarize the definition, anatomical relations and significance of each of the following structures:
		  ○ Mandible
		  ○ Buccal shelf
		  ○ Retromolar pad
		  ○ Mandibular torus
		  ○ Mylohyoid ridge
		  ○ Retromylohyoid area (lingual pouch)
		  ○ Labial sulcus
		  ○ Labial frenum
		  ○ Buccal sulcus
		  ○ Buccal frenum
		  ○ Lingual sulcus
		  ○ Lingual frenum
			• LGIS	• MCQs
				• SEQs
				• OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
6	Introduction to impressions	• Define the term "impression" • Use the correct terminology • Recall the purposes of recording an impression • Enumerate the objectives of impression making • Describe the principles of impression making • Classify and enumerate the various types of impression materials • Determine the choice of impression material to use for particular situation/case • Enumerate the steps of impression making	• SGD	• MCQs • SEQs
7	Impression techniques and theories	• Classify the impression techniques and impression theories • Describe the basic concepts of impression theories • Describe the relative advantages of impression theories • Describe the relative disadvantages of impression theories	• LGIS	• MCQs • SEQs
8	Preliminary impression-I	• Define the term "preliminary impression" • Enlist the materials used • Describe the procedure for using impression compound • Describe the common faults in impressions, their causes and rectifications	• LGIS • CST	• MCQs • SEQs • OSCE • DOPS

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
9	Preliminary impression-II	• Describe the procedure for using alginate • Describe the procedure for using silicone putty • Describe the procedure for using tissue conditioner	• LGIS • CST	• MCQs • SEQs • OSCE
10	Custom tray and planning relief in custom trays	• Define the term “custom tray” • Enlist the requirements of custom trays • Enlist the materials used/classification • Mark out and engrave tray extension on the cast/impression • Define the term “relief” in relation to a custom tray • Enumerate the areas of oral cavity requiring a relief • Describe the methods of providing a relief in the custom tray • Describe the methods of providing a relief in the processed denture base	• LGIS • Lab Demo	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
11	Border molding 1	• Define the term "border molding" • Recall the purpose of border molding • Enlist the materials used for border molding • Classify the techniques of border molding • Explain the techniques of border molding • Briefly outline the procedure for border molding with different materials: stick compound, polyether, putty silicone	• LGIS	• MCQs • SEQs • OSCE
12	Border molding 2 including post dam area	• Describe the border molding for maxillary arch • Define the terms "Post-palatal seal" and "Post-palatal seal area" • Classify the methods of recording this area • Demonstrate the use of green stick compound for creating the post-dam area • Describe the border molding for mandibular arch	• LGIS • CST	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
13	Final impression	• Define the term "final impression" • Enumerate the final impression materials • Recall the steps of final impression making • Give a broad outline of final impression techniques • Give a broad outline of final impression procedure	• LGIS • CST	• MCQs • SEQs • OSCE
14	Record bases	• Define the term "Record base" • Recall the significance of record bases • State the ideal requirements for record bases • Differentiate between temporary and permanent record bases • Enumerate the materials for temporary and permanent record bases • Demonstrate the record base formation with available materials (self-cured acrylic resin, **vacuum formed sheets**, **baseplate wax and heat-cured acrylic resin**)	• SGD • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
15	Occlusion rims	• Define the term "Occlusion rim" • Recall the uses of occlusion rims • Describe the guidelines for fabrication of occlusion rims • Construct an occlusion rim by the rolled wax technique • Develop the required contours and dimensions for maxillary and mandibular occlusion rims	• SGD • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS
16	Jaw relationships: an introduction Orientation jaw relationship	• Define the term "Maxillomandibular jaw relationship" • State the need for/aim of recording the jaw relations • Classify the jaw relationships • Define the terms "Orientation relationship" and "Facebow" • Draw and label the various parts of a facebow • Classify and describe the various types of facebows • Explain the plane of orientation and its reference points • State the indications for using a facebow record • State the advantages of using a facebow record • Making the face bow record	• LGIS • CST	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
17	Vertical relationship 1	• Define the terms: Rest vertical dimension, Occlusal vertical dimension and Interocclusal rest space • Classify the methods of recording the OVD • Describe the concept of physiologic rest position	• LGIS	• MCQs • SEQs • OSCE
18	Vertical relationship 2	• Describe the concept of phonetics, esthetics, ridge relations and pre-extraction records • Effects of high and low OVD • Adjustment of rim for OVD	• LGIS • CST	• MCQs • SEQs • OSCE
19	Centric relationship 1	• Define the terms: “Horizontal relation” and “Centric relation” • Correlate the different concepts of centric relation • Recall the significance of this relationship • Communicate and discuss the methods of achieving mandibular retrusion • Enumerate the methods of making a CR record	• LGIS	• MCQs • SEQs • OSCE
20	Centric relationship 2	• Explain the role of inter-occlusal check records	• LGIS • CST	• MCQs • SEQs • OSCE
21	Centric relationship 3	• Explain the role of graphic records (Gothic arch) • Explain the role of miscellaneous methods	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
22	Articulators	• Define the term "Articulator" • Recall the purpose and uses of this instrument • Recall the advantages of this instrument • Recall the limitations of this instrument • Draw and label the parts of a semi-adjustable articulator • Classify articulators based on instrument function and adjustability	• LGIS • CST • Lab Demo	• MCQs • SEQs • OSCE
23	Mounting	• Define the terms: "Articulation" and "Mounting" • Outline the steps involved in the mounting procedure • Adjust the zero position of an articulator • Mounting the maxillary cast • Mounting the mandibular cast	• SGD • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS
24	Selection of artificial teeth 1	• Recall the various parameters influencing the selection of artificial teeth • State and explain the factors for selecting anterior teeth: size, shape and color	• LGIS	• MCQs • SEQs
25	Selection of artificial teeth 2	• State and explain the factors for selecting posterior teeth: size and shape/form	• LGIS	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
26	Occlusion for the complete dentures 1	• Define the terms: Occlusion, Articulation, Centric occlusion and Eccentric occlusion • Delineate the need to study occlusion • Differentiate between natural and complete denture occlusion • State the functions of a complete denture occlusion • Describe the requirements of complete denture occlusion	• LGIS	• MCQs • SEQs
27	Occlusion for the complete dentures 2	• Classify various occlusal schemes for complete dentures • Define the term "Bilateral balanced occlusion" • Recall the core concept of this occlusion scheme • Recall the mechanics of this occlusion scheme • Enlist the prerequisites for this occlusion scheme	• LGIS	• MCQs • SEQs
28	Occlusion for the complete dentures 3	• State and discuss the factors for developing bilaterally balanced occlusion scheme	• LGIS • Lab Demo	• MCQs • SEQs • OSCE
29	Occlusion for the complete dentures 4	• Describe the concept of monoplane occlusion • Describe the concept of lingualized occlusion • Describe the concept of functionally generated occlusion	• LGIS	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
30	Trial 1	• Define the terms: "Trial placement" and "Trial denture" • State the significance of trial placement for the patient and the dentist • Outline the sequence of trial placement • Outline the verifications made by the dentist in both trial dentures separately	• LGIS • CST	• MCQs • SEQs • OSCE
31	Trial 2	• Outline the verifications made by the dentist in both trial dentures together	• LGIS • CST	• MCQs • SEQs • OSCE
32	Trial 3	• Assess the common errors in trial dentures • Make the required corrections (if needed)	• LGIS • CST	• MCQs • SEQs • OSCE
33	Insertion	• Outline the sequence of insertion of a complete denture • State appropriate instructions to the patient • Assess the denture for processing errors • Evaluate the polished surfaces for any errors • Evaluate the tissue fit and comfort • Evaluate the retention and stability • Evaluate the vertical and centric relations and any errors • Evaluate the occlusion and any occlusal errors • Evaluate the esthetics • Evaluate the speech	• LGIS • CST	• MCQs • SEQs • OSCE • DOPS

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
34	Post-insertion instructions	• Choose an appropriate medium of instructions for the patient • State important instructions to the patient regarding initial appearance and feelings, mastication and speech • State important instructions regarding maintenance of oral and denture hygiene • Plan the follow-up visits	• LGIS • CST	• MCQs • SEQs • OSCE
35	Postinsertion complaints and management 1	• Categorize the post-insertion complaints • Assess the errors in occlusion and correct them • Assess the errors in denture base and correct them	• LGIS • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS
36	Postinsertion complaints and management 2	• Assess the errors in tooth selection and correct them • Assess the errors in tooth arrangement and correct them • Assess for inefficiency of the occlusion and correct it • Assess for adequate tongue space and correct it • Assess for food under the denture and correct it	• LGIS • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
37	Complete immediate dentures 1	• Define the term "Immediate denture" • Enlist the indications and contraindications • Discuss the advantages and disadvantages • Differentiate between conventional and interim immediate dentures • Propose a treatment plan for a given case	• LGIS	• MCQs • SEQs • OSCE
38	Complete immediate dentures 2	• Recall an outline of the procedures involved • Plan and perform the required model surgery • Arrange the artificial teeth on the cast before and after model surgery • Outline specific post-insertion instructions to the patient • Plan the followup appointments	• LGIS • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS
39	Complete over-dentures 1	• Define the terms "Overdenture" and "Complete overdenture" • Differentiate between the various types of overdentures • Classify the overdenture abutments • Outline the rationale of overdenture therapy • Discuss the indications and contraindications	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
40	Complete over-dentures 2	• Discuss the advantages and disadvantages • Propose a treatment plan for a given case	• LGIS	• MCQs • SEQs • OSCE
41	Neutral zone	• Define the term "Neutral zone" • State the concept of neutral zone • Explain the potential denture space • Enumerate the muscles involved in neutral zone and their influence • Enlist the indications for recording the neutral zone • Enlist the materials used for this purpose • Outline the various clinical steps involved • Outline the various laboratory steps involved	• LGIS • CST • Lab Demo	• MCQs • SEQs • OSCE
42	Single complete denture	• Enlist the problems encountered with a single complete denture • Enumerate the types • Recall the techniques for occlusal plane correction • Recall the techniques for occlusal equilibration • Name the options for tooth replacement	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
43	Denture adhesives	• Define the term "denture adhesive" • Classify the commercially available denture adhesives • Enumerate the composition and role of each ingredient • Outline the mechanism of action • Summarize the indications and contraindications • Summarize the advantages and disadvantages	• LGIS	• MCQs • SEQs • OSCE
44	Sequelae of wearing complete dentures-1	• Differentiate between direct and indirect sequalae • Outline the causative factors for direct sequalae • Traumatic ulcers and sore spots • Epulis • Residual ridge resorption • Gagging • Xerostomia • Mucosal reaction • Galvanism • Altered taste perception • Caries	• LGIS	• MCQs • SEQs • OSCE
45	Sequelae of wearing complete dentures-2	• Denture stomatitis • Burning mouth syndrome •	• LGIS	• MCQs • SEQs • OSCE
46	Sequelae of wearing complete dentures-3	• Hypersalivation • Hyposalivation • Gagging	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

COMPLETE DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
47	Sequelae of wearing complete dentures-4	• Indirect sequalae • Combination syndrome	• LGIS	• MCQs • SEQs • OSCE
48	Combination syndrome	• Define the term "Combination syndrome" • State the features of combination syndrome • Recall the pathophysiology • Summarize the strategies for preventing this occurrence • Plan the management of a given case at pre-prosthetic, prosthetic and post-prosthetic stages	• SGD	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

FIXED PROSTHODONTICS				
No.	**Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
1	Introduction to fixed prosthodontics	• Define the term "Fixed prosthodontics" • Recall the advantages and disadvantages • Recall the indications and contraindications	• LGIS	• MCQs • SEQs
2	Prescribing the prosthodontic service 1	• Enumerate the extra-oral and intra-oral factors affecting the decision making • Recall the conditions favoring fixed partial dentures	• SGD	• MCQs • SEQs
3	Prescribing the prosthodontic service 2	• Recall the conditions favoring removable partial dentures • Recall the conditions favoring complete dentures	• SGD	• MCQs • SEQs
4	Diagnosis and treatment planning 1	• Identify the patient treatment needs • Decide treatment for missing tooth • Summarize the process of selecting abutment teeth for single missing tooth	• LGIS	• MCQs • SEQs • OSCE
5	Diagnosis and treatment planning 2	• Summarize the process of selecting abutment teeth for multiple missing teeth • Outline the sequence of providing a given treatment	• LGIS	• MCQs • SEQs • OSCE
6	Principles of crown preparation 1	• Classify the requirements of crown preparation • Summarize the biologic principles	• LGIS	• MCQs • SEQs • OSCE
7	Principles of crown preparation 2	• Summarize the mechanical principles 1	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

FIXED PROSTHODONTICS				
No.	**Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
8	Principles of crown preparation 3	• Summarize the mechanical principles 2	• LGIS	• MCQs • SEQs • OSCE
9	Principles of crown preparation 4	• Summarize the esthetic principles • Outline the importance of diagnostic preparations and waxup	• LGIS	• MCQs • SEQs • OSCE
10	Preparation of complete cast crown	• Recall the required depths of preparations • Recall the advantages and disadvantages • Recall the indications and contraindications • Enumerate the preparation armamentarium • Outline the steps of crown preparation • Prepare 3 mandibular molars (extracted or phantom) for cast crown	• LGIS • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS
11	Preparation of metal-ceramic crown	• Recall the required depths of preparations • Recall the advantages and disadvantages • Recall the indications and contraindications • Enumerate the preparation armamentarium • Outline the steps of crown preparation • Prepare 3 maxillary incisors (extracted or phantom) for metal-ceramic crown	• LGIS • CST • Lab Demo	• MCQs • SEQs • OSCE • DOPS

Specific Learning Outcomes of the Prosthodontics Course Components

FIXED PROSTHODONTICS				
No.	**Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
12	Preparation of all-ceramic crown	• Recall the required depths of preparations • Recall the advantages and disadvantages • Recall the indications and contraindications • Enumerate the preparation armamentarium • Outline the steps of crown preparation	• LGIS	• MCQs • SEQs • OSCE
13	Pontics	• Define the term “Pontic” • Classify the pontics according to mucosal contact • Describe the sanitary pontic • Describe the modified sanitary pontic • Describe the ridge lap pontic • Describe the modified ridge lap pontic • Describe the conical pontic • Describe the ovate pontic • Outline the requirements of pontics	• SGD	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

FIXED PROSTHODONTICS				
No.	**Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
14	Jaw relationships: Mandibular movements	• Classify the mandibular movements as functional or para-functional • Describe the determinants of mandibular movements • Enumerate and describe the types of mandibular movements • Discuss the role of TMJ in mandibular movements • Differentiate between working and non-working sides • Draw and label the envelope of motion in sagittal and frontal planes	• LGIS	• MCQs • SEQs
15	Occlusion	• Classify the occlusion schemes • Differentiate between pathogenic and normal occlusion • Outline the scope of occlusal treatment and adjustment	• LGIS	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
1.	Introduction to removable partial dentures	• Define the term "Removable partial denture" • Discuss the benefits of partial dentures • Enumerate the basic component parts of a partial denture • Differentiate between acrylic and cast partial dentures	• SGD	• MCQs • SEQs
2.	Tooth loss and aging	• Understand the demands of patients after tooth loss • Understand the consequences of tooth loss • Explain the benefits of restoration of the missing teeth	• SGD	• MCQs • SEQs
3.	Classification of partially edentulous arches	• Recall the requirements of a universally acceptable classification system • Enlist a few classification systems in use • Summarize the salient features of Kennedy's classification • Enlist the Applegate rules (in correct order) • Identify the given casts according to Kennedy's classification	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
4.	Major connectors 1	• Define the term "Major connector" • Describe the guidelines for designing the major connectors • Enlist the mandibular major connectors • Describe the features of different mandibular major connectors	• LGIS	• MCQs • SEQs • OSCE
5.	Major connectors 2	• Enlist the maxillary major connectors • Describe the features of different maxillary major connectors	• LGIS	• MCQs • SEQs • OSCE
6.	Major connectors 3	• Describe the designing of mandibular major connectors • Describe a systematic approach for designing the maxillary major connectors	• LGIS	• MCQs • SEQs • OSCE
7.	Minor connectors	• Define the term "Minor connector" • Recall the functions of a minor connector • Describe the form and location of minor connectors • Discuss the role of tissue stops • Locate the finishing lines	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
8.	Rests and rest seats	• Define the terms "Rest" and "Rest seat" • Enlist the functions of a rest • Recall the form of an occlusal rest and rest seat • Explain the concept of an extended occlusal rest • Discuss the features of the interproximal rest seats • Describe the application of intracoronal rests • Recall the support for occlusal rests • Comprehend the application of lingual rests on anterior teeth • Comprehend the application of incisal rests	• LGIS	• MCQs • SEQs • OSCE
9.	Direct retainers 1	• Define the term "Direct retainer" • Summarize the role of direct retainer in prosthesis movement control • Classify the direct retainers used in partial dentures	• LGIS	• MCQs • SEQs • OSCE
10.	Direct retainers 2	• Carry out analysis of tooth contours for retentive clasps • Discuss the factors affecting the amount of retention of clasps	• SGD	• MCQs • SEQs
11.	Direct retainers 3	• Recall the main types of clasp assemblies	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
12.	Direct retainers 4	• Outline the criteria for selecting a given classp • Recall the basic principles of clasp design	• LGIS	• MCQs • SEQs
13.	Direct retainers 5	• Recall the basic principles of clasp design (Continued)	• LGIS	• MCQs • SEQs
14.	Indirect retainers	• Define the term "Indirect retainer" • Recall the functions of an indirect retainer • Recall the factors affecting the effectiveness of indirect retainers • Classify the forms of indirect retainers	• LGIS	• MCQs • SEQs • OSCE
15.	Denture base considerations	• Recall the functions of denture bases • Enumerate the methods of attaching the denture bases to framework • Describe the ideal denture base material • Discuss the advantages of metal bases	• LGIS	• MCQs • SEQs • OSCE
16.	Principles of partial denture design 1	• Describe the design principles of Kennedy's Class I, II and III situations • Outline the strategies for controlling the amount of stress transmitted to the abutment teeth • Outline the essential steps in designing the partial denture •	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
17.	Principles of partial denture design 2	• Explain the components of partial denture design • Perform designing of partial dentures (exercise)	• LGIS • Lab Demo	• MCQs • SEQs • OSCE
18.	Surveying 1	• Define the terms: Surveying, Surveyor, Path of placement • Describe the parts of a dental cast surveyor • Outline the purposes of surveyors	• LGIS	• MCQs • SEQs • OSCE
19.	Surveying 2	• Remember the factors that determine the path of placement and removal • Illustrate the step by step procedure of surveying the diagnostic cast • Perform the Tripoding • Carry out the surveying of the master cast (exercise)	• SGD	• MCQs • SEQs • OSCE • DOPS
20.	Diagnosis and treatment planning 1	• Define the terms “Diagnosis” and “Treatment planning” • Understand the uniqueness of treatment for a patient • Perform a detailed history taking • Perform a detailed clinical examination • Order and interpret appropriate radiographs	• LGIS • CST	• MCQs • SEQs • OSCE
21.	Diagnosis and treatment planning 2	• Explain the role of diagnostic casts in treatment planning	• LGIS • CST	• MCQs • SEQs • OSCE
22.	Diagnosis and treatment planning 3	• Formulate a list of differential diagnosis • Formulate a treatment plan for a given case	• LGIS	• MCQs • SEQs • OSCE

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
23.	Preparation of the mouth for removable partial dentures	• Identify the mouth preparations required for a given case • Order the oral surgical preparation • Implement procedures to manage/condition abused and irritated soft tissues • Understand the need for periodontal preparation • Understand the need for abutment teeth preparation	• LGIS	• MCQs • SEQs
24.	Preparation of the abutment teeth	• Classify the abutment teeth according to need of modifications • Understand the sequence of abutment preparations • Plan the abutment preparations on sound enamel or existing restorations • Plan the abutment preparations using conservative restorations • Plan the abutment preparations using complete coverage crowns • Identify the need for splinting abutment teeth • Plan using isolated teeth as abutments	• LGIS	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
25.	Impression materials and procedures for removable partial dentures	• Summarize the properties of available impression materials • Understand the precautions to be observed in handling hydrocolloid impressions • Perform the step-by-step procedure for making hydrocolloid impressions • Perform the step-by-step procedure for making a stone cast • Explain the possible causes of an inaccurate or weak cast • Fabricate individual impression trays from acrylic resin	• LGIS • Lab Demo	• MCQs • SEQs • OSCE
26.	Support for the distal extension denture base	• Understand the requirements of support for the distal extension denture base • Outline the factors that influence the support of a distal extension denture base • Plan for recording the anatomic form impression • Plan for recording the functional form impression	• SGD	• MCQs • SEQs
27.	Occlusal relationships for removable partial dentures	• Describe the desirable occlusal contact relationships • Enumerate the methods of establishing occlusal relationships • Select appropriate materials for posterior teeth • Understand the jaw relations for a mandibular removable partial denture opposing a maxillary complete denture	• SGD	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
28.	Initial placement, adjustment and servicing of the removable partial denture	• Identify any adjustments to the bearing surfaces of denture bases • Identify any interference from denture framework • Adjust the occlusion in harmony with natural and artificial dentition • Cite necessary instructions to the patients	• LGIS	• MCQs • SEQs
29.	Repairs and additions to removable partial dentures	• Manage a case with broken clasp arms • Manage a case with fractured occlusal rests • Manage a case with distortion or breakage of other components—major and minor connectors • Manage a case with loss of a tooth or teeth not involved in the support or retention of the restoration • Manage a case with loss of an abutment tooth necessitating its replacement and making a new direct retainer	• LGIS	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

PARTIAL DENTURE PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
30.	Temporary removable partial dentures	• Outline the scope of temporary dentures • Discuss different designs of temporary partial dentures • Recall the effects on appearance, space maintenance and occlusal relationships • Implement procedures to condition the patient for wearing a partial denture • Understand the procedure for placement of temporary dentures	• LGIS	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

IMPLANT PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
1	Introduction to dental implantology	• Define the relevant terminologies • Classify dental implants based on morphological characteristics • Enumerate the parts of an implant/implant body • Enumerate and identify the various prosthetic components	• LGIS	• MCQs • SEQs
2	Prosthodontic treatment options with endosteal implants	• Classify various types of implant prostheses • Recall the indications for various types of implant prostheses • Describe the relative advantages and disadvantages of various types of implant prostheses • Recall the conditions associated with maladaptive denture response	• LGIS	• MCQs • SEQs
3	Osseointegration and associated factors	• Define the term osseointegration • Describe the osseointegrated interface • Explain the factors associated with success and failure of osseointegrated implants	• LGIS	• MCQs • SEQs

Specific Learning Outcomes of the Prosthodontics Course Components

MAXILLOFACIAL PROSTHODONTICS				
No.	**Lecture Topics**	**Learning Outcomes** *At the end of each topic, a final year student should be able to:*	**Teaching Strategy**	**Mode of Assessment**
1	Introduction to maxillofacial prosthodontics	• Define the relevant terminologies • Explain the scope of partial dentures in maxillofacial rehabilitation • Classify the maxillofacial defects • Classify the maxillofacial defect prostheses	• LGIS	• MCQs • SEQs
2	Treatment planning	• Understand the timing of maxillofacial prosthodontic work • Explain features of maxillary defect prostheses • Explain features of mandibular defect prostheses • Surgical obturator • Interim obturator • Definitive obturator	• LGIS	• MCQs • SEQs

Assessment

Both formative and summative assessments shall be conducted throughout the final academic year, as per following scheme:

Type of Assessment	Type of Exam	Format	Weightage in Internal Assessment
Formative	Theory, upto 6 class tests at the end of course units or as decided	MCQs (x10) SEQs (x2) Max marks = 20	Nil
Summative	End-of-rotation test (one for each group)	OSCE (x5) Practical/tooth setup (x1) Max marks = 50	30% (6 marks)
	First term exam	MCQs (x20) SEQs (x4) Max marks = 40	20% (3 marks)
	Second term exam	MCQs (x20) SEQs (x4) Max marks = 40	20% (3 marks)
	Sendup exam	Theory (MCQs and SEQs) Practical/tooth setup OSCE Viva Max marks = 140	30% (6 marks)

Internal Assessment

This will comprise of 30 marks including 18 marks from summative assessments and 2 marks for overall behavior and attitude towards teachers and teaching activities

Final Professional Exam (300 marks)

Theory Component: (90 marks paper + 10 marks IA = 100 marks)

Theory paper will comprise of two parts:

- Part A = 5 out of 5 questions to be attempted

  Topics: Complete Denture Prosthodontics, Implant Prosthodontics, Maxillofacial Prosthodontics & TMDs

- Part B = 5 out of 5 questions to be attempted

  Topics: Removable Partial Prosthodontics & Fixed Prosthodontics

Course Component	No. of MCQs (40)	No. of SEQs (10)
Complete Denture Prosthodontics	12	3
Removable Partial Prosthodontics	12	3
Fixed Prosthodontics	10	3
Implant Prosthodontics Maxillofacial Prosthodontics & TMDs	6	1

Practical and Viva Component: (180 marks practical/viva + 20 marks IA = 200 marks)

- Practical work will include one complete denture tooth setup
- OSCE will include upto 5 clinically relevant stations (3-5 minutes each)
- Viva will be conducted by both internal and external examiners

Distribution of Internal Assessment (IA): (30 marks in total, equal to 10% of total marks)

10 marks to be added in theory component and 20 marks in the practical/viva component

Learning Resources

A variety of learning resources need to be used to cover the various course components. Books marked with (****) are must for final year students.

1. Prosthodontic Treatment for Edentulous Patients: Complete Dentures and Implant-Supported Prostheses. Editors Zarb, Hobkirk, Eckert and Jacob. 13th edition or later****
2. Complete Denture Prosthodontics. Editor John J. Manappallil. 5th edition or later****
3. Textbook of Prosthodontics. Editor Deepak Nallaswamy
4. McCracken's Partial Removable Prosthodontics. Editors Alan B. Carr and David T. Brown. 13th edition or later****
5. Miller's Removable Partial Prosthodontics. 3rd edition or later
6. Contemporary Fixed Prosthodontics. Editors Rosenstial, Land and Fujimoto. 5th edition or later****
7. Lecture notes as uploaded on CMS/LMS/MS Teams****

T H E E N D

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