

No.	Title of The Lectures		Hours
1	Introduction to Removable Partial Dentures	<ul style="list-style-type: none"> <li>• Partial dentures</li> <li>• Removable partial denture (RPD)</li> <li>• Objectives for RPD construction</li> <li>• Causes of teeth loss</li> <li>• Indications of removable partial dentures</li> <li>• Fixed partial denture</li> <li>• Indications for fixed partial denture</li> <li>• Dental implant therapy</li> <li>• Contraindications for dental implant therapy</li> <li>• Terminology and re-finishing</li> </ul>	1
2	Classification of Partially Edentulous	<ul style="list-style-type: none"> <li>• Need for classification.</li> </ul>	1

	Arches	<ul style="list-style-type: none"> <li>• Requirements of an acceptable method of classification</li> <li>• Removable partial dentures may be classified according to the type of support</li> <li>• Removable partial dentures may be classified according to the type of material</li> <li>• Removable partial dentures may be classified according to the type of treatment</li> <li>• Classification based on arch configuration</li> <li>• Kennedy – Applegate – Fiset classification system.</li> <li>• Applegate's rules governing the application of the Kennedy classification method</li> </ul>	
3	Surveying	<ul style="list-style-type: none"> <li>• The ideal requirements for successful removable partial denture</li> <li>• Purposes (Objective) of Surveying the Diagnostic Cast</li> <li>• Advantages of single path of placement (insertion)</li> <li>• Guiding planes</li> <li>• Dental surveyor</li> <li>• Types of dental surveyors</li> <li>• Parts of dental surveyor (Ney type surveyor)</li> </ul>	1
4	Surveying (continue)	<ul style="list-style-type: none"> <li>• Principles of surveying</li> <li>• Types of undercuts established by surveying</li> <li>• Factors that determine and affect the path of placement (insertion) and removal of the RPD</li> </ul>	1

		<ul style="list-style-type: none"> <li>• Rules of surveying</li> </ul>	
5	Component Parts of a Removable Partial Denture	<ul style="list-style-type: none"> <li>• Main components of RPD</li> <li>• Major connectors</li> <li>• Requirements of major connectors</li> <li>• Guidelines for design and location of major connectors</li> <li>• Characteristics of major connectors</li> </ul>	1
6	Maxillary Major Connectors	<ul style="list-style-type: none"> <li>• Special Structural Requirements for Maxillary Major Connectors</li> <li>• Types of Maxillary Major Connector</li> <li>• Single palatal bar</li> <li>• Single palatal strap</li> <li>• Anterior-posterior palatal bars</li> <li>• Combination anterior and posterior palatal strap-type connector</li> <li>• Palatal plate-type connector</li> <li>• U-shaped palatal connector</li> </ul>	1
7	Mandibular Major Connectors	<ul style="list-style-type: none"> <li>• Special structural requirements</li> <li>• Types of mandibular major connectors</li> <li>✓ Lingual bar <ul style="list-style-type: none"> <li>➤ Methods that may be used to determine the relative height of the floor of the mouth</li> </ul> </li> <li>✓ Lingual plate (linguoplate) <ul style="list-style-type: none"> <li>➤ The indications</li> </ul> </li> </ul>	1

		<p>for the use of linguoplate</p> <ul style="list-style-type: none"> <li>✓ Double lingual bar (lingual bar with cingulum bar) <ul style="list-style-type: none"> <li>➤ Indications for use of double lingual bar</li> </ul> </li> <li>✓ Labial bar <ul style="list-style-type: none"> <li>➤ Indications for use of labial bar</li> <li>➤ Characteristics and location</li> </ul> </li> </ul>	
<b>8</b>	Minor Connectors	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Functions</li> <li>• Form &amp; location</li> <li>• Basic types of minor connectors</li> <li>• Tissue stops</li> <li>• Finishing lines</li> <li>• Reaction of Tissue to Metallic Coverage</li> </ul>	<b>1</b>
<b>9</b>	Rests and Rest Seats	<ul style="list-style-type: none"> <li>• The purposes of the rest in general</li> <li>• Occlusal Rest</li> <li>• Extended Occlusal Rest</li> <li>• Interproximal Occlusal Rest</li> <li>• Internal Occlusal Rests</li> <li>• Occlusal Rest Seat Preparation</li> <li>• Occlusal Rests on Amalgam Restorations</li> <li>• Occlusal Rest on Crowns</li> <li>• Lingual Rests (Cingulum Rest)</li> <li>• Incisal Rests and Rest Seats</li> <li>• Implants as a Rest</li> </ul>	<b>1</b>
<b>10</b>	Retention and Removable Partial Denture Retainers	<ul style="list-style-type: none"> <li>• Direct retainers</li> <li>• Indirect retainers</li> <li>• The extra coronal retainer</li> </ul>	<b>1</b>

		<p>(Clasp type)</p> <ul style="list-style-type: none"> <li>• Component parts, Function, and position of clasp assembly parts</li> <li>• Factors affecting the magnitude of retention</li> <li>• The basic principles of clasp design</li> </ul>	
11	Extra Coronal Direct Retainers (Types of clasp assemblies)	<ul style="list-style-type: none"> <li>• Clasps designed without movement accommodation.</li> <li>• Circumferential (Circle or Akers) clasp</li> <li>• Ring-type clasp</li> <li>• Embrasure (double Akers) clasp</li> <li>• Back action clasp</li> <li>• Multiple clasps</li> <li>• Half-and-half Clasp</li> <li>• Reverse-action clasp (Hairpin)</li> <li>• Disadvantages of circumferential clasps in summary</li> <li>• Clasps designed to accommodate distal extension functional movement</li> <li>• RPI clasp</li> <li>• Bar-type clasp assembly</li> <li>• RPA clasp; Akers clasp</li> <li>• Infra-bulge clasp</li> <li>• Combination clasp</li> </ul>	1
12	Intracoronal Direct Retainers (Internal Attachments, Precision Attachments)	<ul style="list-style-type: none"> <li>• Internal attachments</li> <li>• Precision Attachments</li> <li>✓ Some indications for precision attachments</li> <li>✓ Some of the contraindications for precision attachments</li> <li>✓ The main types of precision attachments</li> </ul>	1

		<ul style="list-style-type: none"> <li>• Selection of an Attachment for a Removable Partial Denture</li> </ul>	
13	Stress-Breakers (Stress Equalizers)	<ul style="list-style-type: none"> <li>• Stress breakers</li> <li>✓ Types of stress breakers</li> </ul>	1
14	Indirect Retainers	<ul style="list-style-type: none"> <li>• The main factors influencing the effectiveness of an indirect retainer</li> <li>• The auxiliary functions of indirect retainers</li> <li>• Forms of Indirect Retainers</li> </ul>	1
15	Indirect Retainers (continue)	<ul style="list-style-type: none"> <li>• Auxiliary occlusal rest</li> <li>• Lingual rest</li> <li>• Incisal rest</li> <li>• Canine extensions from occlusal rests</li> <li>• Cingulum bars (continuous bars) and linguo-plates</li> <li>• Modification areas</li> <li>• Rugae support</li> </ul>	1
16	Laboratory procedures in RPD construction: Blockout and Relief	<ul style="list-style-type: none"> <li>• Blockout and relief</li> <li>• Cast preparation</li> <li>• Types of blockout of master cast</li> <li>✓ Parallel blockout</li> <li>✓ Shaped blockout</li> <li>✓ Arbitrary blockout</li> <li>• Relieving the master cast</li> <li>• Purpose of relief</li> <li>• Sites</li> <li>• Tissue Stops</li> </ul>	1
17	Laboratory procedures in RPD construction: Duplication and Refractory Cast Construction	<ul style="list-style-type: none"> <li>• Duplicating a stone cast</li> <li>• Duplicating material and flask</li> <li>• Impression</li> <li>• Refractory cast</li> </ul>	1

18	Laboratory procedures in RPD construction: Wax Pattern	<ul style="list-style-type: none"> <li>• Waxing the framework</li> <li>• Spruing</li> <li>• General rules for spruing</li> <li>• Investing the sprued pattern</li> <li>• Purpose of investment</li> <li>• Burnout</li> </ul>	1
19	Laboratory procedures in RPD construction: Casting and Finishing	<ul style="list-style-type: none"> <li>• Casting</li> <li>• Casting recovery</li> <li>• Finishing the framework</li> <li>• Sprue removal</li> </ul>	1
20	Denture Base in RPD	<ul style="list-style-type: none"> <li>• The primary function of denture base</li> <li>• Types of denture base according to support</li> <li>• Types of the denture base according to materials</li> <li>• Advantages of metal denture base</li> <li>• Disadvantages of metal denture base</li> <li>• Design consideration of denture base</li> <li>• Periodontal consideration of denture base design</li> <li>• Types of artificial teeth</li> </ul>	1
21	Record Bases, Occlusion Rims, Mounting and Arrangement of Teeth	<ul style="list-style-type: none"> <li>• Record bases</li> <li>• Types of record bases according to materials constructed from it</li> <li>• Occlusion rims</li> <li>• Occlusion rims for static jaw relation records</li> <li>• Occlusion rims for recording functional or dynamic jaw relationship record</li> <li>• Mounting casts on the articulator</li> </ul>	1

		<ul style="list-style-type: none"> <li>• Arrangement of artificial teeth to the opposing cast</li> <li>• Principles that should be taken during arrangement of artificial teeth</li> <li>• Laboratory procedure of arrangement teeth (Example)</li> </ul>	
22	Biomechanics of Removable Partial Dentures	<ul style="list-style-type: none"> <li>• Biomechanical considerations</li> <li>• Possible movements of partial dentures</li> <li>• Tooth-tissue-supported prosthesis</li> </ul>	1
23	Biomechanics of Removable Partial Dentures (continue)	<ul style="list-style-type: none"> <li>• Tooth-supported partial denture</li> <li>• Occlusal Rest Seat Preparation and Denture Movement</li> <li>• Impact of Implants on Movements of Partial Dentures</li> </ul>	1
24	Principles of Removable Partial Denture Design	<ul style="list-style-type: none"> <li>• Difference in Prosthesis Support and Influence on Design</li> <li>• Differentiation Between Two Main Types of Removable Partial Dentures</li> </ul>	1
25	Principles of Removable Partial Denture Design (continue)	<ul style="list-style-type: none"> <li>• Components of Partial Denture Design</li> <li>• Implant Considerations in Design</li> </ul>	1
26	Clinical Phases of Removable Partial Denture Construction.	<ul style="list-style-type: none"> <li>• 1st Phase: Education of patient</li> <li>• 2nd Phase: Diagnosis, Treatment Planning, Design, Treatment Sequencing, and Mouth</li> </ul>	1



		<p>Preparation</p> <ul style="list-style-type: none"> <li>• 3rd Phase: Support for Distal Extension Denture Bases</li> <li>• 4th Phase: Establishment and Verification of Occlusal Relations and Tooth Arrangements</li> <li>• 5th Phase: Initial Placement Procedures</li> <li>• 6th phase: Periodic Recall</li> </ul>	
27	Acrylic Removable Partial Dentures	<ul style="list-style-type: none"> <li>• Acrylic removable partial dentures</li> <li>• Appearance</li> <li>• Maintenance of space</li> <li>• Reestablishment of occlusal relationships</li> <li>• Conditioning of teeth and residual ridges</li> <li>• Interim restoration during treatment</li> <li>• Conditioning the patient for wearing a prosthesis</li> <li>• Clinical procedure for placement</li> </ul>	1
28	Flexible Removable Partial Dentures	<ul style="list-style-type: none"> <li>• Flexible removable partial dentures</li> <li>• Type of material used for the flexible denture</li> <li>• Support</li> <li>• Retention</li> </ul>	1
29	Repairs and Additions to Removable Partial Dentures	<ul style="list-style-type: none"> <li>• Broken clasp arms</li> <li>• Several reasons for breakage of clasp arms</li> <li>• Fractured occlusal rests</li> <li>• Distortion or breakage of other components – major and minor connectors</li> <li>• Addition of a new</li> </ul>	1

		artificial tooth to a RPD	
		<ul style="list-style-type: none"> <li>• Repair by soldering</li> </ul>	
30	Digitally Designed & Fabrication Process of RPD Framework Using CAD/CAM System	<ul style="list-style-type: none"> <li>• Components of CAD/CAM system</li> <li>• Types of Digital Scanner</li> <li>• Digital RPD Framework Design (step by step)</li> <li>• Digital Fabrication Process</li> </ul>	1
<b>Total</b>			<b>30</b>

### *Laboratory sessions*

Lab number	Study unit title	Hours
1	Introduction to Removable Partial Dentures	2
2	Kennedy Classification	2
3	Cast Trimming	2
4	Surveying	2
5	Surveying	2
6	Wire Bending	2
7	Wire Bending	2
8	Acrylic Removable Partial Denture Design	2
9	Acrylic Removable Partial Denture Laboratory Procedures	2
10	Acrylic Removable Partial Denture Laboratory Procedures	2
11	Flexible Partial Denture Design	2
12	Flexible Partial Denture Laboratory Procedures	2
13	Flexible Partial Denture Laboratory Procedures	2
14	Flexible Partial Denture Laboratory Procedures	2
15	Principles of 2D Design for the Removable Partial Denture s	2
16	Principles of 2D Design for the Removable Partial Denture s	2
17	Principles of Drawing 2D Design for the Removable Partial Dentures	2
18	2D Design for Mandibular & Maxillary Arches	2
19	2D Design for Mandibular & Maxillary Arches	2
20	2D Design for Mandibular & Maxillary Arches	2
21	Drawing Removable Partial Denture 3D Design & CAD/CAM	2
22	Drawing Removable Partial Denture 3D Design & CAD/CAM	2
23	Types of Rests	2
24	Rest Seat Preparation	2
25	Block Out and Relief	2
26	Block Out and Relief	2
27	Duplication Of the Master Cast	2
28	Wax Pattern for the Removable Partial Denture Framework	2
29	Wax Pattern for the Removable Partial Denture Framework	2

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<b>30</b>	Framework Fabrication	<b>2</b>
<b>Total</b>		<b>60</b>