



Department of Prosthetic Dentistry

26 Krakowska St., 50-425 Wrocław

Head: Associate professor Dr Edward Kijak DMD, MSc, PhD

**Schedule of PRACTICAL CLASSES for
III year students of Dentistry English Division
2022/2023, winter semester**

Place of classes: Phantom Room no 125, Department of Dental Prosthetics, ul. Krakowska 26, 1st floor

No.	DATE	TOPIC	Student's work	Demonstration by a technician
1	07.10.2022	<p>1.A. Organization of the course.</p> <ul style="list-style-type: none"> Discussion of the Department's rules and regulations, dividing the students into subgroups, discussing the program of exercises and lectures, presentation of the course program and introducing the safety and hygiene instructions and the rules of operating equipment and tools. <p>1.B. Introduction to fixed prosthetic restorations.</p> <p>Theory:</p> <ul style="list-style-type: none"> Definition of a prosthetic crown; indications and contraindications, divisions of prosthetic crowns; clinical and laboratory stages of making different crowns; general principles of tooth preparation for different types of crowns; prevention of complications during treatment; methods of securing the living tooth after grinding; 	<p>Practical activities:</p> <ul style="list-style-type: none"> Metal and metal veneered crowns- I clinical stage. Materials, tools, stages Preparation (grinding) of tooth 36 or 46 for a cast metal stepped gingival crown. Partial Test 	
2	14.10.2022	<p>Cosmetic dental crowns</p> <p>Theory:</p> <ul style="list-style-type: none"> Types of preparation with steps depending on the type of crown; materials used to make complex cosmetic crowns. Instrumentation; steps in making complex crowns Split (segmented) models 	<p>Practical activities:</p> <ul style="list-style-type: none"> Grinding of tooth 25 or 15 for a metal crown faced with porcelain; impression with silicone elastomer An impression of the upper dental arch with alginate mass and casting of a plaster model. Making a protective crown for the pillar of tooth 25 or 15. Partial test. 	<i>Casting of a composite model</i>
3	21.10.2022	<p>Cosmetic crowns- continuation</p> <p>Theory:</p> <ul style="list-style-type: none"> Materials used for all-ceramic crowns Preparation of the tooth for an all-ceramic crown (steps, tools) Materials and impression methods used in constructing crowns Recording of central occlusion with retained support zones 	<p>Practical activities:</p> <ul style="list-style-type: none"> Preparation of tooth 12 or 22 for an all-ceramic crown impression and registration of the central occlusion Impression of the lower dental arch with alginate mass and casting of a plaster model Sub-test. 	

4	28.10.2022	Prosthetics crowns - laboratory stages of making different types of crowns <u>Theory:</u> <ul style="list-style-type: none"> • Methods of shaping a wax crown model (calibrated wax matting, etc.). • Principles of casting used in prosthodontics - shielding compounds (refractory), casting rings, casting cones and funnels, preparation of the casting mold, methods of melting alloy and casting molds, the mistakes of casting processes • Facial arches, articulators 	<u>Practical activities:</u> <ul style="list-style-type: none"> • Embedding models in the articulator • Partial test. 	<i>Making the casting cone , casting funnels and embedding in covering compound</i>
5	04.11.2022	Temporary prosthetic crowns <u>Theory:</u> <ul style="list-style-type: none"> • Types of temporary crowns; methodology for creating temporary crowns; materials used for temporary crowns (individual and fabricated). • Cementing of crowns - temporary and permanent cements used to set prosthetic crowns 	<u>Practical activities:</u> <ul style="list-style-type: none"> • Casting the crown of tooth 36 from metal. • Making a temporary crown from model wax • Prosthetic crowns - 1st Thematic Colloquium. 	<i>Adjustment of cast crowns - trimming the casting funnel, mechanical treatments, adjusting and polishing</i>
6	18.11.2022	Prosthetic bridges <u>Theory:</u> <ul style="list-style-type: none"> • Definition; indications and contraindications; types of prosthetic bridges; materials used for prosthetic bridges; types of spans of prosthetic bridges, principles of design of prosthetic bridge structures; clinical and laboratory stages of prosthetic bridges. 	<u>Practical activities:</u> <ul style="list-style-type: none"> • Grinding of teeth 14 and 17 for a bridge 14 vv 17 , based on the base of stepped crowns: 17 cast metal crown, stepped, gingival and 14 cast ceramic veneered crown, stepped, gingival. • Impression of the upper dental arch with silicone elastomer. • Casting of a folding plaster model. • Partial test. 	
7	25.11.2022	Prosthetic bridges - modeling <u>Theory:</u> <ul style="list-style-type: none"> • Methods of making prosthetic bridges depending on the material used : homogeneous and composite (covering compounds, principles of casting, materials used for veneering , ways of combining the veneering material with the metal coping 	<u>Practical activities:</u> <ul style="list-style-type: none"> • Modeling of a metal crown on tooth 17, metal coping for a crown on tooth 14 and a pontic. • Sub-test. 	
8	02.12.2022	Prosthetic bridges - modeling - continuation <u>Theory:</u> <ul style="list-style-type: none"> • Special prosthetic bridges - adhesive, AET - indications and contraindications, materials and methods of creating special bridges. • Cements used for setting temporary and permanent prosthetic bridges; principles of cementing bridges; 	<u>Practical activities:</u> <ul style="list-style-type: none"> • Continuation of modeling of metal crown on tooth 17, metal coping for crown on tooth 14 and span. • Establishing the occlusion. • Mounting the working casts on the articulator. • Prosthetic bridges - II Thematic colloquium 	
9	09.12.2022	Posts and cores <u>Theory:</u> <ul style="list-style-type: none"> • Types of posts and cores (manufactured and individual, basic and complex)- indications and contraindications • Principles of preparing a tooth for an individual inlay - tools; methods of making individual post - indirect and direct method 	<u>Practical activities:</u> <ul style="list-style-type: none"> • Restoration of the root canal : the supporting surface, the root canal and the anti-rotation chamber of tooth 23 for making an individual post and core using acrylic material. • Preparation of a pattern made of self-curing acrylic resin to 	

		<ul style="list-style-type: none"> Principles and ways of securing teeth prepared for post 	<p>produce an individual post and core</p> <ul style="list-style-type: none"> Partial test. 	
10	16.12.2022	<p>Posts and cores- continuation</p> <p>Theory:</p> <ul style="list-style-type: none"> Impression masses; techniques and types of impressions used in making post and core Cements and principles of seating individual crown-root inlays 	<p>Practical classes:</p> <ul style="list-style-type: none"> Preparation of the root of tooth 21 for a standard fiberglass post. Insertion of the post and restoration of the tooth crown stump with fast-polymerizing acrylic plastic using a standard mol Crown-root inlays - III Thematic colloquium. 	
11	13.01.2023	<p>Settled partial dentures</p> <p>Theory:</p> <ul style="list-style-type: none"> Definition of a partial settled denture; indications and contraindications for fabrication; clinical and laboratory steps for fabrication of settled dentures. Impression masses; standard impression trays; individual impression trays Checkbite: definition, construction and range 	<p>Practical activities:</p> <ul style="list-style-type: none"> Clinical stages I and II; laboratory stage I. Anatomical impressions, casting of models, making of the checkbite Partial test 	
12	20.01.2023	<p>Settled partial dentures - continuation</p> <p>Theory:</p> <ul style="list-style-type: none"> Paralleling- construction, application, principles of paralleling analysis. Construction of a denture clamp- materials, principles of positioning (retention surface- definition and surface characteristics) Principles of tooth arrangement in settled partial dentures 	<p>Practical activities:</p> <ul style="list-style-type: none"> Clinical stages III ; II laboratory stage Registration of occlusion and assembly of models Positioning of teeth Partial test 	
13	27.01.2023	<p>Partial dentures - control of sample dentures</p> <p>Theory:</p> <ul style="list-style-type: none"> Methods of making acrylic partial dentures ; conversion of wax to acrylic - tinning and polymerization - errors Development of finished prostheses 	<p>Practical activities:</p> <ul style="list-style-type: none"> Continued positioning of teeth, clasp bending Tinning and polymerization of partial dentures Partial dentures- IV Thematic colloquium. 	
14	01.02.2023	<p>Thermoforming sheets</p> <p>Theory:</p> <ul style="list-style-type: none"> Types and materials used to make thermoformable plates; principles of making plates; 	<p>Practical activities:</p> <ul style="list-style-type: none"> Casting plaster models and pulling thermoformable sheets. 	<i>Pressing thermoformable sheets on plaster models</i>
15	02.02.2023	Credit of the semester material	<ul style="list-style-type: none"> Course credit. 	

Requirements for obtaining the credit:

By decision of the Rector, obtaining the credit for a course may performed by distance education techniques.

1. The credit for passing the theoretical knowledge from classes and lectures with the leading assistant. Oral answer or written test.

2. Receiving a credit for practical skills from the teaching assistant according to the individually performed work on phantoms.

3. Phantom works necessary for obtaining 3rd year credit (annual standard)

- prosthetic crowns:**

- Grinding of tooth 36 for crown made of metal stepped and gingival ; making a protective crown for the pillar of tooth 36; taking an impression by using silicone elastomer; taking an impression by using alginate mass; determining and recording occlusion; setting models in an articulator, modeling the crown of 36 tooth from wax, making a stud and casting cone,

• **prosthetic bridges:**

-preparing of 14 and 17 teeth for bridge fabrication; impression of dental arch with silicone elastomer; casting of foldable plaster model; modeling of crowns and bridge span.

crown and root inlays:

-working of the tooth for the crown-root inlay; modeling of the crown-root inlay with wax using the indirect method; making of a standard fiberglass inlay, reconstruction of the stump of the crown of the tooth with the help of quick-polymerizing material

• **clinical and laboratory steps in the performance of complete dentures according to the Wrocław and classic methods:**

- making an customized tray; making functional impression for maxilla and mandible, rules for arrangement of artificial teeth according to Gysi and flat-topped teeth according to the Wrocław method

• **knowledge of how to use a parallelometer**

• **principles of designing clamps**

• **pressing thermoformable sheets on the plaster models**

4. All manual works on phantoms and phantom models are made individually, one of each.

Obligatory literature:

1. S.F. Rosenstiel, M.F. Land & J.Fujimoto: Contemporary Fixed Prosthodontics, Mosby, 2003
2. B.G.N. Smith, L.C.Howe: Planning and Making Crowns and Bridges, Informa Healthcare, 2007

Recommended literature:

1. H.T.Shillingburg, S.Hobbo & LD Whitsett: Fundamentals of Fixed Prosthodontics, Quintessence Publishing 1997
2. Journal: Dental and Medical Problems.

**Schedule of LECTURES of Prosthetics Dentistry
for III year Students of Dentistry English Division
2022/2023- winter semester**

LECTURES WILL BE PERFORMED USING DISTANCE LEARNING METHODS AND TECHNIQUES

DATE: THURSDAY 12.15- 13.15

Data	Topic	Teacher
27.10.2022	Basic and auxiliary materials used in prosthetic dentistry.	Piotr Napadtek, DMD, MSc, PhD
03.11.2022	General principles of designing dental restorations.	Piotr Napadtek, DMD, MSc, PhD
10.11.2022	Crown-root inlays. Indications and contraindications of the execution methods	Piotr Napadtek, DMD, MSc, PhD
17.11.2022	Prosthetic crowns. Indications, contraindications and division of crowns	Piotr Napadtek, DMD, MSc, PhD
24.11.2022	Prosthetic crowns. Clinical and laboratory implementation	Piotr Napadtek, DMD, MSc, PhD
01.12.2022	Prosthetic bridges. Indications, contraindications, principles of designing	Piotr Napadtek, DMD, MSc, PhD
08.12.2022	Removable partial dentures.	Piotr Napadtek, DMD, MSc, PhD
15.12.2022	Non-settling partial dentures - skeletal dentures. Construction of the denture, parallelometer analysis.	Piotr Napadtek, DMD, MSc, PhD