WROCLAW
MEDICAL UNIVERSITY

Wrocław, 04.02.2025

Department of Prosthetic Dentistry
Head: Associate professor Dr Edward Kijak DMD, MSc, PhD

Schedule of PRACTICAL CLASSES of Prosthodontics preclinical for III year students of Dentistry English Division 2024/2025, summer semester

Place of classes: Phantom Room, Department of Dental Prosthetics, ul. Krakowska 26, 1st floor

No.	DATE	TOPIC	CONTENT AND IMPLEMENTATION OF EXERCISES
1	27.02.	**Introduction of classes. Introduction to skeletal dentures. Principles of support and skeletal prosthesis design**	• Organization of classes, required textbooks – recall. • Discussing the structure and principles of using the parallel-meter • Denture insertion trajectory. • Design of the periodontal support. • Design of the upper denture plate and demonstration of the possibility of it's reduction. • Mandibular wing prosthesis support and design of the sublingual arch. • Parallelometric analysis of the model. • **Partial test**
2	06.03.	**Basic principles of clamp design**	• Relationship of the lateral walls of the teeth to the analyzer (inferior and superior angular surfaces, greatest convexity of the tooth, greatest convexity of the alveolar process, dental and alveolar arcade, orientation lines, first and second area of the stop teeth). • Buckle surfaces (retentive, classic guide, active guide, passive guide, stabilizing, intermediate and insertion). • Features of the buckle surface: length, width, depth, degree of countersinking • Determination on a model using a parallelometer: • (a) the greatest intrinsic and relative convexity of the selected tooth. • (b) determination of the I and II area of the retaining teeth. • (c) Practical search and determination of the type of bracket surfaces. • **Written test**
3	13.03.	**Basic principles of clamp design**	• Classification and designing of: clamps, independent, dependent, and group clamps, major and • minor connectors, rest and rest seats for the skeletal dentures. • Design of retention, guide and stabilizing arms. • Types of retention arms and directional attaching function of retention arms. • Design of placement and number of clamps. • Design of clamps for specific teeth and their arrangement on the model. • Parallelometric analysis of the model and design of the denture. • **Written test**
4	20.03.	Design of a frame denture	• Individual designing of frame dentures • **Frame dentures- III Colloquium / oral form** • Taking anatomical impressions with alginate masses on phantom models
5	27.03..	**Complete the material**	• **Complete the material** • Laboratory classes.
6	03.04.	**Description of the Wrocław and Classical method - clinical and laboratory stages. Clinical stage I.**	• Clinical stage I - Diagnostic procedures: patient interview and examination (extra and intraoral) ; Clinical and laboratory procedures in complete dentures performing, anatomical impression, customized tray performing for edentulous maxilla and basic plate performing for edentulous mandible. • Laboratory stage I - casting of plaster model • Evaluation of completed work • **Partial test**
7	10.04.	**Laboratory stage I of Wrocław method**	• Laboratory stage I continuation - Flasking of the upper denture, functional impression of the mandible, flasking of the lower denture. • Evaluation of completed work • **Partial test**

8	24.04.	**Clinical and laboratory stage II of Wrocław method**	• Clinical stage II: Review of Herbst tests for maxilla and mandible, functional impression for maxilla; Adjusting the base plate for the mandible. • Laboratory stage II :preparing the base plate for the maxilla. • Evaluation of completed work • **Partial test**
9	08.05.	**Laboratory stage II and Clinical stage III of Wrocław method**	• Laboratory stage II: preparation of occlusal checkbite/ templates for the maxilla and mandible • Clinical stage III: determining the height of the occlusion, the color of the teeth and the orientation lines • Evaluation of completed work • **Partial test**
10	15.05.	**Complete the material**	• **Edentulous - I Colloquium** • Laboratory classes.
11	22.05.	**Laboratory stage III - model articulation**	• Sphincters and articulators • Theories and principles of setting artificial teeth • Laboratory stage III - mounting of models with occlusal checkbite /templates in the articulator • Evaluation of completed work • **Partial test**
12	29.05.	**Laboratory stage III - arrangement of teeth**	• Arrangement of artificial teeth according to Gysi and flat-cusp teeth according to Wroclaw method. • Laboratory stage III - continuation of setting artificial teeth/ arrangement artificial teeth according to Gysi • Evaluation of completed work • **Partial test**
13	06.06.	**Laboratory stageIII - arrangement of teeth , Clinical stage IV-VI**	• Laboratory stage III - Arrangement of artificial teeth according to Gysi • Clinical stage IV-VI: Control of trial dentures. Establishment of the posterior palatal seal, prosthetic relief **- theory** • **Partial test**
14	12.06.	**Complete the material**	• **Edentulous - II Colloquium** • Laboratory classes.
15	16.06.	Modern systems and technologies in prosthetic dentistry - foreword knowledge; **Credit of the subject**	Theory: • CAD/CAM SYSTEMS in prosthodontics - principles, design, milling of prosthetic restorations. • Biofunctional Prosthetic System - materials, fabrication technique, principles of clinical practice • 3D printing in prosthodontics - printers, materials, application Practical classes: • Scanning models, designing simple works - student's own work • *Milling and 3D Printing (demonstration by a technician)* • Credit of the subject

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

3. Phantom works necessary for obtanining 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; Two-stage impression for crown-root inlay; 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**

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

Basic 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 Healthcar 2007
3. A.B. Carr, G.P. McGinvey, D.T.Brown: McCracken's Removable Partial Prosthodontics. St. Louis: Mosby 2004

Additional literature and other materials

1. H.T.Shillingburg, S.Hobbo & LD Whitsett: Fundamentals of Fixed Prosthodontics, Quintessence Publishing 1997
2. R.G. Craig, J.M. Powers: Restorative Dental Materials. Mosby 2002
3. Hayakawa: Principles and Practices of Complete Denture. Quintessence Publ. Co Ltd.
4. Journal: Dental and Medical Problems.

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