

<b>Study program:</b> Integrated academic studies in dentistry
<b>Type and level of the study program:</b> integrated academic studies
<b>Course title: Clinical gnathology (DV-CGNAT)</b>
<b>Teacher:</b> Maletin Z. Aleksandra, Marković M. Dubravka, Milekić R. Bojana, Petronijević Šarčev S. Branislava
<b>Course status:</b> Optional
<b>ECTS Credits: 3</b>
<b>Condition: -</b>
<b>Course aim</b>
<b>Objective of the course:</b> mastering the diagnostics and treatment options in temporomandibular dysfunction, learning methodologies of reversible occlusal therapy and the basic principles of occlusal balancing by selective grinding.
<b>Expected outcome of the course:</b>
Knowledge on functional analysis of orofacial complex, evaluation of occlusion complex status, occlusion therapy, tooth abrasion and malocclusions.
Skills in diagnostic principles and therapy of temporomandibular dysfunctions, selective grinding and creation of stabilization splints.
<b>Course description</b>
<i>Theoretical education</i>
<ol style="list-style-type: none"> <li>1. Functional analysis of the orofacial complex, importance, methods, scope of analysis, medical history, examination of the head, face and jaw examination of TMJ and orofacial muscles, palpation, auscultation, functional tests, testing the range and uniformity of mandibular movements</li> <li>2. Evaluation of occlusion complex status, examination of the occlusion complex, clinical and radiographic evaluation of the health status of the remaining teeth, caries, abrasion, periodontal disease, tooth loss analysis of the position and continuity of the occlusal plane analysis of the contact relationships of teeth in the intercuspal position and in eccentric contact movements of the mandible occlusion indicators (markers), types, methods identification of premature contacts and occlusal interferences</li> <li>3. Analysis of intermaxillary relationships determining the position of physiologic rest of the mandible, patient preparation, methods determining of mid-point position of the mandible, patient preparation, methods recording of the mid-point position of the mandible, importance, methods, materials, evaluation of the current intercuspal position of the mandible, analysis of mandible guidance in eccentric positions.</li> <li>4. Symptoms and signs of non-physiological activity of the orofacial system, traumatic occlusion, occlusal interference, the effects of occlusal interference, muscle hyperactivity, myalgia, arthralgia, parafunctions of the orofacial system, temporomandibular disorders, epidemiology, signs and symptoms, diagnostics.</li> <li>5. Occlusion therapy modalities, objectives, plan of the occlusion therapy, reversible occlusal therapy, indications, types of splints, creation of Michigan (stabilization) splint, prognosis and the importance of reversible occlusal therapy</li> <li>6. Irreversible occlusal therapy (IOT) modalities, objectives, plans, indications, determinants of occlusal morphology during irreversible occlusal therapy.</li> <li>7. Selection of the occlusion model during irreversible occlusal therapy, model of balanced occlusion, model of mutually protected occlusion, selection of reference position of the mandible during IOT, type of central occlusal contacts, tooth contact ratio of the eccentric movements of the mandible (selection of the optimal system of mandible guidance).</li> <li>8. Irreversible occlusal therapy - selective grinding, definitions, methods, target of selective grinding, indications, plan of selective grinding, elimination of defective contacts in a central position, establishing optimal system for mandible guidance by selective grinding elimination of protrusive, laterotrusive and mediotrusive interferences instruments and materials used in selective grinding</li> <li>9. Etiology, pathology and treatment of tooth abrasion.</li> <li>10. Irreversible occlusal therapy, occlusal restorations using fillings, occlusal restoration using fixed and mobile dentures</li> <li>11. Principles of occlusal therapy in patients with malocclusions</li> </ol>
<i>Practical education: exercises, other forms of education, research related activities</i>
<ol style="list-style-type: none"> <li>1. Functional analysis of the orofacial complex; Demonstration and student work on a patient history, examination of the head, face and jaws, examination of temporomandibular joints, palpation, auscultation, X-ray images, examination of orofacial muscles, palpation, functional tests, testing/measurement of the range and uniformity of mandibular movements (the data are filled into a special questionnaire), recording of signs (symptoms) of craniomandibular dysfunction</li> <li>2. Evaluation of the status of the occlusion complex, examination of the upper and lower dental arches, x-ray analysis, recording of missing teeth, registering tooth contact with the antagonist, carious teeth, teeth with fillings, presence of dental restorations, presence of abrasion facets, mobility of the remaining teeth (the data are entered into a special questionnaire)</li> <li>3. Analysis of tooth contact ratio, occlusion markers, types, colors, instruments, analysis of occlusal contacts in a central position and intercuspal position, identification of deflective contacts in a retruded contact position of the mandible and premature contacts in the intercuspal position analysis of mandible guidance in an eccentric position, type of the guidance determined by protrusion, guidance by lateral movement identification of protrusive, laterotrusive and mediotrusive disorders on models in the articulator in patient's mouth (the data are entered into a special questionnaire), imprints of the upper and lower jaw.</li> <li>4. Creation of stabilization (Michigan) splint in patients with TMD, transferring models into the articulator, demonstration of</li> </ol>

- making of splint modeling of Michigan splint in the articulator (demonstration and student work), delivery and adaptation of the Michigan splint.
5. Selective grinding, identification of occlusal interferences in the mouth and in the articulator, selective grinding in the articulator, selective grinding in the mouth ( demonstration and student work on the patient).
  6. Planning irreversible occlusion therapy, selecting a reference position of the mandible, selecting occlusion model, extent of reconstructive intervention, type of reconstructive interventions ( information is entered into a special questionnaire )

**Literature**

*Compulsory*

1. Wiens JP. Fundamentals of Occlusion, American Collage of Prosthodontists, 2016

*Additional*

<b>Number of active classes</b>				Other:
Lectures: 30	Practice: 15	Other types of teaching:	Research related activities:	

**Teaching methods:** theoretical and practical

**Student activity assessment (maximally 100 points)**

<b>Pre-exam activities</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
Lectures	30	Written	10
Practices	20	Oral	20
Colloquium	0	.....	
Essay	20		