

## **SYLLABUS**

### **OF PRECLINICS OF PROSTHETIC DENTISTRY**

1. Phylogenetic evolution and ontogenetic progress of the maxillofacial area and the masticatory apparatus.
2. Oral cavity. Lips. Cheeks. Hard and soft palate, salivary glands, tongue.
3. Masticatory apparatus bones – functional structure. Functional anatomy of the temporomandibular joint (TMJ).
4. Masticatory and mimic muscles – functional anatomy.
5. Teeth – types of dentition. Parts and structure of the tooth. Periodontal apparatus – structure and functions.
6. Deciduous and permanent dentition. Eruption and periods of eruption for the primary and the secondary dentition. Morphology of the deciduous teeth. Functional teeth groups.
7. Planes of orientation of the dentition. Parts and sides of the teeth. Dental formulas.
8. Basic characteristics and signs for teeth identification.
9. Morphology of the permanent incisors.
10. Morphology of the canines.
11. Morphology of the upper premolars.
12. Morphology of the lower premolars.
13. Morphology of the upper molars.
14. Morphology of the lower molars.
15. Gnathology. Physiologic rest position. Masticatory articulation and occlusion. Basic positions of the mandible.
16. Border positions of the mandible. Types of occlusions. Angle's perfect occlusion.
17. Occlusal anatomy. Occlusal contacts.
18. Occlusal curves – importance for the Prosthodontics
19. Bite. Types of bites.
20. Sounds production. Speech function. Importance of the prosthetic treatment for the speech function.
21. Dental aesthetics. Physical beauty. Shape and color of teeth and face.

22. Anthropometric principles of face and teeth harmony. Anthropometric points. Planes and distances.
23. Biomechanics of the masticatory apparatus and the periodontium. Masticatory muscle forces.
24. Masticatory pressure. Functional-mechanical equilibrium of the periodontium.
25. Masticatory pressure transfer reflexes.
26. Physiological standing of the periodontium. Formulas.
27. Biomechanics of the masticatory articulation. Articulation cycles – opening and closing.
28. Biomechanics of the mandible movements.
29. Simulation of the mandible movements. Theories of the mandible movements.
30. Devices for simulation of the mandible movements. Fixators and occludators.
31. Devices for simulation of the mandible movements. Types of articulators.
32. Functional and age changes in the masticatory apparatus. Attrition. Abrasion. Erosion.
33. Functional and age changes in the periodontium. Clinical and anatomical crown. Clinical and anatomical root. Godon's phenomenon.
34. Changes in the masticatory apparatus after complete edentulism
35. Methods for determination of the function of the masticatory apparatus. Gnathodynamometry. Static methods.
36. Dynamic methods of determination of the function of the masticatory apparatus.
37. Methods of speech function examination.
38. Aesthetic proportions, dimensions, lines, planes.
39. Impressions and models. Impression trays.
40. Prosthetic field impression. Segment impression.
41. Full dental arch impressions. Bite registration.
42. Pouring gypsum models – model of full arch impression.
43. Working cast with removable dies.
44. Fabrication of a gypsum fixator with “a key”.
45. Wax modelling – subtractive technique.
46. Wax modelling - additive technique.
47. Investment process of the wax prototype of the restoration. Casting. Soldering and welding.
48. Cleaning and polishing of metal, plastic and combined restorations.
49. Basic classifications of the prosthetic restorations.
50. Single crown – definition. Classification.
51. Single crown requirements. Teeth preparation for single crowns.

52. Preparation junctions' types. Partial crown – definition, types.
53. Metal crown technology.
54. All-ceramic crown technology.
55. Acrylic crown technology.
56. Metal ceramic crown technology.
57. Partially veneered metal-acrylic crown technology.
58. Laboratory composites. Vectris.
59. Post-and-core restoration.
60. Post-and-core restoration crowns.
61. Bridge restorations. Elements. Pontic profiles.
62. Bridge restorations classification. Types of connection between the retainers and the pontic.
63. Bridge restoration according to “Adapta” system.
64. Model cast bridge restoration. Selective opened partial retainers – definition.
65. Esthetic incrustation of the bridge restorations – with acrylic resin or ceramics. Technologies. Types of retention.
66. Basic principles of bridge restoration construction. Mechanical resistance. Periodontal base.
67. Principles of retainers and pontic construction.
68. Cantilever bridge restorations.
69. Removable partial dentures (RPD) – elements.
70. Elements of RPD. Retentive and support elements. Equators.
71. Clasps. Parts of the clasp. Wire bent clasps. Plastic clasps.
72. Metal cast clasps – parts, types.
73. Combined RPD. Precision attachments. Classification.
74. Combined RPD. Milled RPD.
75. Combined RPD. Bars, locks, hinge attachments.
76. Classification of RPD. Basic steps of construction.
77. Acrylic RPD with wire bent clasps.
78. Model cast RPD. Planning.
79. Principles of construction of model cast RPD. Fulcrum lines. Types of defects of the dental arches
80. Model cast RPD. Principles of model cast clasps construction.
81. Model cast RPD. Principles of model cast framework construction.
82. Model cast RPD technology – basic steps.

83. Immediate RPD technology.
84. Splinting teeth – general principles. Classification of the splints.
85. Types of stabilization of teeth. Fixed splints.
86. Types of stabilization of teeth. Removable splints.
87. Complete (full) denture. Elements. Retention and stabilization of complete dentures - definitions.
88. Methods for retention and stabilization of full dentures.
89. Impressions and models for complete dentures technology.
90. Occlusal record blocks. Fixation of the vertical dimension of the occlusion (VDO). Fixation in occludator or articulator.
91. Teeth arrangement according to Gysi. Compensation curves. Balanced occlusion.
92. Another methods for teeth arrangement.
93. Modelling, investing and finishing of full dentures.
94. Types of full dentures.
95. Repairs and relining of complete dentures.
96. CAD / CAM Prosthodontics.

#### **LITERATURE:**

1. MAIN LECTURE COURSE
2. Rickne C. Scheid. Woelfel's Dental Anatomy: Its Relevance to Dentistry (Eighth Edition). Wolters Kluwer
3. Herbert T. Schillinburg et al. Fundamentals of Fixed Prosthodontics (Fourth Edition). Quintessence Publishing
4. McCracken. Removable Partial Prosthodontics (Eleventh Edition). Elsevier, MOSBY.
5. Zarb, Hobkirk, Eckert, Jakob. Prosthetic Treatment of Edentulous Patients. Complete Dentures and Implant-Supported Protheses, Elsevier (13 Edition).

**CHIEF OF DEPARTMENT:**

/Prof. G. Todorov/