**3rd Year**

**Summer Semester Academic Year 2023/2024**

1. Etiology of malocclusions. General and local factors (dysfunctions, parafunctions, consequences of caries and injuries).
2. Diagnosis of malocclusions. Sagittal, vertical, transverse malocclusions. Dental abnormalities.
3. Clinical examination of the patient. Family and personal history. Extraoral examination (analysis of facial features in front and profile view, landmarks, planes, biometric field). Intraoral examination. Functional examination of the masticatory muscles. Functional tests.
4. Impressions and casts – taking impressions, characteristics of a proper impression and cast. Impression materials and trays. Types of plaster and orthodontic casts. Principles of trimming casts.
5. Analysis of facial features in front and profile view, landmarks, planes, biometric field. Photography.
6. Analysis of diagnostic casts. Metric analysis of arch shape. Symmetry analysis of the arch. Analysis of models (Angle's classes, canine classes, overbite, overjet). Measurement devices used for cast analysis.
7. Analysis of diagnostic casts – continued. Analysis of the upper and lower casts. Abnormalities in tooth position.
8. Indices (Moyers, Droschl, Tonn, Pont, Bolton, Little, Izard, Masztalerz, segmented analysis of permanent dentition according to Lundström). Measurement devices.
9. Radiological examinations. Panoramic radiograph analysis. Assessment of dental age (clinical and radiological methods).
10. Assessment of skeletal age (based on analysis of radiographic images of the hand and wrist, as well as cephalograms).
11. Cephalometric analysis according to Segner and Hasund. Reference landmarks and lines. Angles and segments.
12. Cephalometric analysis according to Segner and Hasund. Classification of facial types. Evaluation of sagittal and vertical harmony.
13. Credit for the subject.