

FACULTY OF DENTAL MEDICINE

CENTER FOR DENTAL IMPLANTOLOGY

TOPICS FOR PRACTICAL EXERCISES IN DENTAL IMPLANTOLOGY

5th Year, Winter Semester 2026/2027

1. Soft Tissue Management in Dental Implantology

Types of incisions. Flap design and mobilization. Basic principles and techniques of suturing. Surgical instrumentation.

Practical part: Performing different suturing techniques on training models.

2. Suture Materials and Suturing Techniques in Dental Implantology

Types of suture materials and selection criteria. Basic and specific suturing techniques.

Practical part: Performing different suturing techniques on training models.

3. Soft Tissue Grafts in Implant Treatment

Free gingival graft (FGG) and connective tissue graft (CTG) – indications, harvesting techniques, adaptation and fixation.

Practical part: Harvesting, adaptation and fixation of soft tissue grafts on training models.

4. Three-Dimensional Positioning of a Single Implant in the Distal Region of the Dentition

Basic principles of three-dimensional implant positioning. Surgical instrumentation and osteotomy sequence. Basic surgical approaches for implant bed preparation.

Practical part: Working with a surgical kit and placement of a single implant on a training model.

5. Implant Planning in the Partially Edentulous Distal Region

Clinical and radiographic analysis of the edentulous area and adjacent anatomical structures.

Determination of the number, dimensions and position of implants. Biologically and prosthetically driven inter-implant and implant-tooth distances.

Practical part: Implant planning, selection of appropriate implant dimensions, and placement of two implants in a distal region on a training model.

6. Implant Planning in the Esthetic Zone

Immediate and delayed implant placement in the anterior region – indications, selection criteria and surgical considerations. Prosthetically driven three-dimensional implant positioning.

Distances from adjacent teeth and implants.

Practical part: Immediate placement of a single implant in the esthetic zone on a training model.

7. Seminar – Individual Case Analysis Based on an Intraoral Scan, Clinical Photographs and CBCT

Clinical planning and selection of a surgical protocol for implant treatment. Analysis of clinical cases. Selection between immediate, early and delayed implant placement. Determination of the optimal three-dimensional implant position. Selection of the surgical approach and assessment of the need for hard- and soft-tissue augmentation. Discussion of possible complications and their prevention.

8. Temporary (Provisional) Restorations in Implant Treatment

Types of provisional restorations and methods of fabrication. Biological and prosthetic principles of peri-implant soft tissue shaping. Development and modification of the emergence profile.

Practical part: Fabrication and individualization of a provisional single crown on an implant.

9. Analog Impression Techniques for Definitive Implant Prosthodontics

Types of implant impression techniques. Open-tray and closed-tray techniques. Indications, sequence and specific considerations in different clinical situations.

Practical part: Taking implant impressions using open-tray and closed-tray techniques.

10. Digital Impression Techniques in Implant Prosthodontics

Principles of intraoral scanning for single and multiple implants. Types of digital impression copings (scan bodies), positioning and selection. Digital workflow and communication with the dental laboratory.

Practical part/Demonstration: Intraoral scanning of an implant using a digital impression coping (scan body).

11. Definitive Implant Prosthodontics and Cementation/Screw Retention of Prosthetic Restorations

Types of implant abutments. Screw-retained and cement-retained restorations – indications, advantages and limitations. Materials for definitive implant prosthodontics. Protocol for restoration fixation and occlusal control.

Practical part: Selection and positioning of the abutment, fixation of the implant-supported restoration and application of the recommended tightening torque.

12. Implant Prosthodontics with Partial and Complete Removable Prostheses

Indications and treatment planning principles. Types of retention elements and implant-retained removable prostheses. Number and positioning of implants. Practical application and support.

Practical part: Direct relining of a complete denture and integration of Locator-type retention elements.

13. Implant Prosthodontics in Completely Edentulous Patients

Fixed implant-retained restorations in complete edentulism. All-on-X concepts. Basic principles for determining the number and position of implants. Types of framework designs and materials. Removable restorations for complete edentulism.

14. Seminar – Case Summary: Overview of Implant Prosthodontic Methods

Overview and systematization of the main implant prosthodontic methods for single missing teeth, partial edentulism and complete edentulism.