

# **IMPLANTOLOGY I. – lecture**

## **Department of Oro-Maxillofacial Surgery and Stomatology**

**Lecture:** 1 hour/week

### **Course Syllabus:**

Introduction. History of oral implantology. The classification of oral implants, according to the anatomic site. Endosteal implants. The indications, contraindications of implant treatment. Diagnostics and treatment planning. General considerations of implant surgery. Special considerations of implant surgery. The time of implant placement. The fundamental biomechanics of oral implants. The role of surface chemistry and topography in the osseointegration. The essential conditions of success of the implant therapy: Biocompatibility. Osseointegration. Gingival seal. Progressive osseointegration. The factors influencing the masticatory load transmission through implants. The fundamentals of implant prosthodontics: Implant abutments, impression techniques. Prosthetic options on implants. Implant failures. Biological, mechanical complications and their management.

**Practice:** 1 hour/week

### **Practice of Implantology complements and deepens the knowledge obtained during the theoretical course**

Diagnostics – X-ray diagnostics, CBCT analysis, introduction of X-ray and surgical template  
Introduction of the implant surgery through the system of the Straumann – emphasize on the unique properties of the system (surface, comparison of 1-stage / 2-stage surgical method  
Introduction of the implant prosthodontics through the SIC system – emphasize on the unique properties of the system, prosthetics of the SIC system. Practicing the steps of the prosthetics on a model, cad-cam based prosthetic abutment, safe on four concept, platform switching, Balance healing screws and and abutments  
Guided bone regeneration through the products of Geistlich company – introduction of the methods of bone augmentation techniques, sinus-lifting, lateral bone augmentation practicing on models  
Introduction of the guided implant surgery Nobel Biocare Guide System overview – emphasize on the unique properties of the system  
Introduction of the failures of implantology and their solutions through the Osstem system – emphasize on the unique properties of the system, practicing on models

### **Semi-final examination**