

### **Clinical medicine 1**

<i>Expected learning outcomes</i>
After completing the course. the student will be able to: <ul style="list-style-type: none"><li>- demonstrate taking a medical history and perform clinical examination</li><li>- demonstrate communication with the patient</li><li>- describe and explain the etiology, pathogenesis, diagnosis and treatment of the most common infectious, internal medicine, mental, neurological and pediatric diseases</li><li>- describe and explain the impact of systemic diseases on oral health</li></ul>

### **Clinical medicine 2**

<i>Expected learning outcomes</i>
At the end of the course, students will be able to: <ul style="list-style-type: none"><li>- describe and explain the etiology, pathogenesis, diagnosis and treatment of the most common diseases in otorhinolaryngology, ophthalmology and oncology</li><li>- describe and explain oral complications of chemotherapy and radiotherapy in the head and neck area</li></ul>

### **General and special surgery**

<i>Expected learning outcomes</i>
Upon completion of the course, the student will be able to: <ul style="list-style-type: none"><li>- explain the process of tissue healing, surgical infections and injuries</li><li>- classify injuries in the field of traumatology and explain the principles of care for single and multiple injuries including resuscitation</li><li>- analyze symptoms and diagnose emergencies in surgery</li><li>- perform treatment of a minor wound with knowledge of the principles of antisepsis and asepsis and sterilization methods and with the use of local anesthesia</li><li>- demonstrate procedures for stopping external bleeding with a compression bandage, a relieving bandage, or surgical hemostasis</li><li>- perform the procedure of infusion or transfusion, access to the bloodstream, intravenous administration of drugs, and placement of a bladder catheter</li></ul>

### **Dental radiology**

<i>Expected learning outcomes</i>
Upon completion of the course the student will be able to: <ul style="list-style-type: none"><li>- explain the principles of X-ray radiation protection and protection against ionizing radiation.</li><li>- analyze panoramic radiographs of the jaw, bite-wing images, periodontal and apical radiograms and occlusal radiograph of the jaw</li><li>- explain the origin of radiograms and quality control criteria, extraoral images of teeth, cephalogram</li><li>- explain the radiological anatomy of the jaw and teeth, the structure of dental film and photochemical processing, digital detectors, radiological signs of developmental anomalies of teeth and radiological signs of pathological changes,</li></ul>

including degenerative, inflammatory, metabolic changes, trauma and tumors

- explain the basics of radiology of the paranasal sinuses, orbits, salivary glands, jaw joint and pharynx.

## **Anaesthesiology, reanimatology and intensive care**

### *Expected learning outcomes*

After completing the course, students will be able to:

- prepare patients for anesthesia and surgery
- premeditate the patient
- evaluate techniques and types of anesthesia that are most suitable for the patient - techniques for maintenance and monitoring of general anesthesia, anesthesia machines, etc.
- explain regional anesthesia techniques and the use of local anesthetics
- explain postoperative follow-up of patients in the waking room
- describe and analyze intensive treatment measures for patients with conditions such as shock, sepsis and inorganic failure syndrome
- explain and compare basic and advanced airway maintenance techniques and treatment of acute heart failure.

## **Materials in dental medicine**

### *Expected learning outcomes*

After completing the course. students will be able to:

- describe the concepts and basic procedures in a dental laboratory
- explain the ways of making prosthetic replacements
- compare and classify devices in the dental laboratory
- explain main and auxiliary materials
- connect indications, devices and materials according to indications
- identify devices in the dental laboratory
- associate procedures with devices and materials
- perform device management procedures
- explain the development of dental materials

## **Propedeutics and diagnosis in dental medicine**

### *Expected learning outcomes*

At the end of the course the students will be able to:

- define dental unit and equipment in the dental office
- define and differentiate sterilization and disinfection procedures in the dental office
- define propaedeutic and basic diagnosis in all the specialist branches: restorative dental medicine, root canal therapy, periodontology, oral medicine, dental prosthetics, paediatric dentistry, oral surgery, and orthodontics
- differentiate the basic instruments in dental office
- analyze anamnestic data
- perform patient examination and perform simple diagnostics procedures for detection of the most common oral diseases
- differentiate certain techniques for obtaining and maintaining dry field of work
- argument the need for imaging diagnostics in the fields of dental and oral medicine.

## **Cariesology**

### *Expected learning outcomes*

At the end of the course the students will be able to:

- list and describe the types of dental caries
- describe the etiological factors of dental caries

- classify risk groups for the occurrence of dental caries
- describe and explain the types of preventive measures in the dental caries prevention
- classify the risk of new or progression of existing carious lesions
- plan therapy depending on the risk of new or progression of an existing carious lesion

## **Preclinical removable prosthodontics**

### *Expected learning outcomes*

At the end of the course the students will be able to:

- describe the types of impressions
- analyze the laboratory methods of manufacturing complete and partial dentures
- define and explain errors in their production
- describe the articulators

## **Preclinical fixed prosthodontics**

### *Expected learning outcomes*

Students will be able to:

- differentiate and describe equipment and instruments and analyze their application in a prosthodontics' office as well as in a laboratory of dental medicine
- differentiate and describe types of crowns
- theoretically describe basic principles of tooth preparation for total crowns and apply the previously acquired knowledge on practical work with models and patient simulators
- differentiate shapes and sizes of burs, choose the right burr for each tooth surface and use them
- compare and define features of impression materials, argumentate their usage and impression technique depending on the type of impression material and type of prosthodontic restoration
- describe and apply production techniques of provisional restorations
- differentiate types of prefabricated post and cores with their advantages and disadvantages
- differentiate appliances and instruments and their usage in a dental medicine laboratory
- describe rules of a wax model production, casting system, differentiate types and features of waxes and their usage as well as using prefabricated wax patterns
- compare techniques and materials for connecting metals and describe laboratory procedures of soldering and welding as well as complications that can occur during the process
- define types, features and usage of acrylic materials, composites, glass reinforced composites and ceramics in fixed prosthodontics, and describe laboratory techniques of restorations
- differentiate total ceramic systems and describe the laboratory technique for each ceramic system

## **Restorative dental medicine (3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year)**

### *Expected learning outcomes*

After completing the course, the student will be able to:

- adapt and select appropriate types of manual and rotary instruments in RDM depending on the clinical situation
- recognize carious lesions and choose an appropriate restorative approach depending on the localization and extension of the lesion
- perform preparation and restoration of simple class I, II and V cavities with amalgam and adhesive materials
- perform preparation and restoration of Class III and IV cavities for adhesive materials
- demonstrate the handling and application of materials for conservative tooth reconstruction in the dental office
- recognize different types of trauma to teeth and supporting tissues
- perform appropriate dental therapy after trauma
- demonstrate the handling and application of materials for conservative tooth reconstruction in the dental office
- illustrate the modern principles of crown reconstruction of endodontic treated teeth (setting of intracanal retention, indirect restorations – onlay, overlay, crown, post-endodontic crown whitening)

## Oral hygiene

### *Expected learning outcomes*

At the end of the course the students will be able to:

- define the concept of oral hygiene
- explain and define dental biofilm
- analyse the significance of oral hygiene in dental pathology, periodontology, paediatric dentistry, oral medicine and orthodontics as well as in patients at risk.
- explain the meaning of dental bacterial plaque
- describe oral hygiene techniques
- identify and compare dental instruments
- analyze oral hygiene index
- analyze sulcus bleeding index
- identify mechanical and chemical means for oral hygiene maintenance
- explain the procedures for oral hygiene maintenance