

### Internal medicine

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

- define, describe and make anamnesis and clinical examination procedures
- form medical histories
- explain and compare the basic principles of diseases covered by internal medicine, including cardiology, gastroenterology, nephrology, pulmonology, metabolic diseases and endocrinology, rheumatology, allergology and immunology
- define and analyze examinations and treatments of diseases, especially diseases that are closely related to dental pathology and procedures

### Neurology

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

Knowledge:

- explain the concept of consciousness and the causes of wakefulness disorders and clinical indicators of the depth of consciousness disorders
- define cerebrovascular diseases and their division
- explain the etiology of stroke, diagnosis and treatment of acute stroke
- explain the disorders and functions of the sensory nerves and explain the function of all 12 cerebral nerves
- classify epileptic seizures and types of epileptic seizures
- explain the etiology of epileptic seizures
- explain the pathogenesis and etiology of movement disorders
- explain the forms of atypical parkinsonism

Skills:

- make anamnesis in neurological patients and explain its specifics and necessary anamnestic data that should always be examined in a neurological patient
- judge the degrees of disturbance of consciousness
- examine the function of each individual cranial nerve
- examine the motor functions of the upper and lower motor neurons and know how to interpret them correctly
- recognize and explain the clinical picture of lesions of individual cranial nerves
- apply measures of primary and secondary prevention of stroke
- recognize the symptoms of damage to the lower motor neuron and be able to examine the innervation area of a particular nerve or root
- apply experiments to test coordination; balance in walking and standing; walking experiment
- critically interpret limb coordination disorder and body balance disorder
- recognize damage to the extrapyramidal system
- examine muscle and skin reflexes, sensory functions - superficial and deep sensations and integrative sensory functions
- recognize the main features of Parkinson's disease and use diagnostic methods and treatments for Parkinson's disease

### Dermatovenerology

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

- take medical history and dermatological status
- explain skin efflorescence
- describe and recognize changes in visible mucous membranes
- describe individual dermatological diseases of adults and children, with emphasis on those that are especially important in dental pathology, encouraging differential diagnostic thinking by studying the disease as a syndrome, developing rationality in the diagnostic approach and critical and professional grounding in prescribing therapy.
- classify emergencies in dermatology

### **General and special infectology**

Upon completion of the course the student should be able to:

- distinguish infectious diseases of adults and children
- analyze the differential diagnosis of infectious diseases
- analyze anamnestic data
- argue the prescribing of antimicrobial therapy
- define and analyze emergencies in infectology

### **Psychiatry and psychological medicine**

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

Knowledge:

- describe basic diagnostic psychiatric categories;
- retain the most common pathological conditions, and analyze the riskiest factors;
- reproduce the mechanisms and patterns of psychological resistance and defense;
- memorize the theory of personality development, transmission and countertransference; reactions, and the basics of psychotherapeutic procedure;
- define psychological assistance in emergencies and socio-therapeutic activities and methods of implementation.

Skills:

- recognize normal communication;
- learn, practice and hone communication skills;
- select diagnostic category and interventions;
- identify transmission and anti-transmission reactions;
- introduce the patient to other members of the therapeutic team, analyze his current mental state;
- assess the level of anxiety and depression and psychological defense mechanisms.

### **Oncology**

After finishing the exam s students will be able to:

- explain the molecular genetic basis of cancer
- explain the way the immune system recognizes and fight malignant cells
- explain findings on metastasis and angiogenesis
- indicate the incidence and mortality of cancer in the country and the world
- list the basic risk factors for cancer
- explain ways to prevent disease
- list and explain the basic therapy methods in oncology: radiotherapy, chemotherapy , biological therapy, immunotherapy, hormone therapy, and less applied forms of treatments
- list the incidence of the disease and factor of risks, therapy possibilities, prognostic parameters, prevention methods

### **General and special surgery**

Upon completion of the course, the student will be able to:

- explain the process of tissue healing, surgical infections and injuries
- classify injuries in the field of traumatology, and explain the principles of care for isolated and multiple injuries, including resuscitation and resuscitation
- analyze symptoms and diagnose emergencies in surgery
- make treatment of a small wound knowing the principles of antisepsis and asepsis, methods of sterilization, with the use of local anesthesia
- to stop external bleeding with a compression bandage, esmarch bandage or surgical hemostasis
- perform the procedure of infusion or transfusion, access to the bloodstream, intravenous administration of drugs and placement of a urinary catheter

### **General and dental radiology**

Upon completion of the course the student will be able to:

- explain the principles of X-ray radiation protection and protection against ionizing radiation.
- analyze panoramic radiographs of the jaw, strip bite images, periodontal and apical radiograms and occlusal radiograph of the jaw
- explain the origin of radiograms and quality control criteria, extraoral images of teeth, cephalogram
- 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

symptoms of pathological changes, 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**

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

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

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

Knowledge:

- define working settings and equipment in the dental office
- define and differentiate sterilization and disinfection procedures in the dental office
- define propedeutics and basic diagnosis in all the specialist branches: restorative dental medicine, root canal therapy, periodontology, oral medicine, dental prosthetics, pediatric dentistry, oral surgery, and orthodontics

Skills:

- 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

### **Preclinical removable prosthodontics**

- know about making complete and partial dentures
- describe the types of impressions
- analyze laboratory methods of making complete and partial dentures
- define mistakes in making them
- know about articulators

### **Preclinical fixed prosthodontics**

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 acrylate 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 dentistry I**

During seminars and clinical sessions, students consolidate and connect their theoretical knowledge acquired during previous courses and comparative lectures in the Course of Restorative Dentistry. Students practice recognition, diagnostics, operative therapeutic procedures of carious lesions, functional and aesthetic reconstruction of teeth with different materials.

Learning outcomes:

- list and describe the types of hand and rotary instruments in restorative dentistry
- list the ways of isolating the operating field
- describe and classify carious lesions
- describe simple class i and v cavities for amalgam
- describe the class ii amalgam cavity
- list and describe the composition and purpose of materials for conservative tooth reconstruction in the dental office
- indicate and describe the class iii cavity for adhesive materials
- describe the procedure, step by step, for each preparation and restoration of the cavity
- carry out procedures for sealing the fissure system of the tooth with a seal and seal filling on the patient.

### **Scientific research in dental medicine**

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

- describe the scope of general and oral epidemiology
- classify and describe epidemiologic observations and research, as well as types of epidemiologic surveys
- classify and describe epidemiologic indicators of oral disease and health status in dental medicine
- classify population and sample in research
- list types of measurement scales used in research, describe dependent and independent samples, and statistical methods used in analysis, respectively
- classify and describe types of scientific publications
- list and explain parts of scientific publication/article
- describe bibliometric and scientometric indicators
- list and describe ethical issues with regards to drafting, writing and publication of scientific work
- plan and perform search of scientific literature through available databases

### **Health management**

Upon completion of the course students will be able to:

- define the concept of management in health and dental medicine
- describe the types of teams
- analyze personal, interpersonal and communication skills
- define conflict management style and negotiation skills
- analyze the way of conducting a successful business meeting
- explain business literacy