

# **The profile of the dentistry graduate at Jessenius Faculty of Medicine in Martin, Charles University in Bratislava**

## **PREAMBLE**

The Jessenius Faculty of Medicine in Martin, CU is a higher education institution whose main aim is to educate and prepare future dentists and medical professionals for their future career in modern dentistry.

By completing the joint degree programme, graduates gain a solid grounding in the theoretical and practical knowledge and skills:

1. the graduate has good knowledge of the sciences on which dentistry is based and a good understanding of scientific methods, including the principles of measuring biological functions, evaluating scientifically established facts and analyzing data,
2. the graduate has good knowledge of the composition, physiology and behavior of healthy and sick people, as well as the impact of the natural and social environment on human health
3. the graduate has good knowledge of the structure and function of the stomatognathic system, oral cavity, dental tissues, facial skeleton, salivary glands and all related anatomical structures, their impact on general health, physical and social condition of the patient
4. the graduate has good knowledge of clinical disciplines and methods to be able to brief and inform the dentist with a coherent picture of anomalies, diseases and injuries of the dental system, oral cavity, dental tissues, facial skeleton, salivary glands and all related anatomical structures,
5. the graduate masters the basic principles of dental examination, imaging methods and using dental equipment, can interpret the basic laboratory results, including diagnostics, differential diagnosis and treatment of stomatognathic system diseases,
6. The graduate has good theoretical knowledge and practical clinical skills that will enable him to provide dental care at the appropriate level,
7. the graduate masters the basics of giving first aid in life-threatening conditions,
8. the graduate has the necessary knowledge of therapeutic dentistry, orthopedic dentistry, dentoalveolar and maxillofacial surgery,

9. the graduate understand the role of professional development, follows the modern trends in medicine and advocates healthy lifestyle as the method of disease prevention
10. the graduate ought to support humanities principles and should cultivate and maintain a sense of a hierarchy of values in which altruism, empathy, respect for life, respect for human dignity and the rights of the patient are at the highest level,
11. the graduate understands the principles of medical psychology and ethics, and applies them in practice,
12. the graduate obtains the prerequisites to obtain a specialization in individual fields of dentistry after completing the prescribed internship, postgraduate study and examinations,
13. The graduate should master the basics of scientific work in theoretical and clinical disciplines, modern methods of obtaining, processing and transmitting scientific and professional information.

**A. At the end of their studies, the JFMED graduates of the joint I. and II. degree dentistry programme should have gained the following skills and knowledge:**

A solid grounding in theoretical, practical pre-clinical and clinical knowledge in medicine and dentistry. The breadth of knowledge in general medicine is in line with the requirements for being able to provide dental medical treatments in the way that support the symbiosis of the whole organism. The dental subjects make up a minimum of 60% of teaching. As for the practical side, the graduate has completed all fundamental diagnostic, therapeutic and preventive training and are able to, independently, provide dental medical care. The graduates recognise the connection between general medicine and dentistry, respect the integrity of whole organism and appreciate the importance of multidisciplinary approach to dentistry. The graduates are prepared to work at the entry level and within different medical sectors. They are also familiar with the legal framework relating to providing medical care and understand how medical profession is structured in the given country.

## **Therapeutical dentistry**

The graduates of therapeutic dentistry acquire a comprehensive overview of cariology, endodontics with a focus on maintaining the health of hard dental tissues and their supporting structures in temporary, mixed and permanent dentistry.

By completing the course, they will gain important knowledge and skills, which they will use in their practice. Using modern methodologies, diagnostic and therapeutic devices, they will improve in conservation dentistry (treatment of hard dental tissues) and in endodontics (treatment of root canals). They will acquire theoretical knowledge and practical skills in the field of aesthetic reconstruction of hard dental tissues, endodontic treatment of inflammatory processes of the dental pulp and periodontium. By completing the course, they acquire comprehensive theoretical knowledge and practical experience in the field of pediatric dentistry, which can be used in a comprehensive examination, diagnosis and design of treatment plans for children. The graduates obtain comprehensive information on the etiopathogenesis of periodontal tissue diseases. They will be acquainted with the classification, understand the principles of diagnosis, can determine periodontological indices. Can analyze and differentiate between the characteristics of a healthy and a sick periodontium. Understand the principles of prevention and recall system. By completing the course, the student acquire a comprehensive view of the complex treatment of periodontal diseases, including conservative and surgical procedures, prosthetic dental treatment with a weakened periodontium, the use of controlled bone regeneration and dental implants. In the subject of oral medicine, the graduates obtain comprehensive information on the etiopathogenesis of diseases of the oral mucosa. They understand the principles of treatment in high-risk patients, can analyze pathological conditions on the mucous membranes during pregnancy. They are familiar with the manifestations of serious infections in the oral cavity (HIV infections). They understand the issue of white areas on the mucous membranes of the oral cavity. Gains practical experience in the diagnosis, treatment and treatment of keratotic and non-keratotic white areas.

## **Orthopedic dentistry**

The graduates of orthopedic dentistry gain fundamental knowledge about the classification of prosthetic dental defects. They will be acquainted with direct and indirect procedures in dental

prosthetics. They will improve in the imprinting technique. They can analyze prosthetic defects and determine the basic prosthetic solution plan. Understand the principles of preparation of hard dental tissues in the manufacture of fixed prostheses. Understand the work procedures for making fixed crown replacements and fixed bridges. Understands the issue of transmission of chewing forces through partial removable prostheses. They will get acquainted with methods of preparation of oral structures for partial removable prostheses. Understand the issue of transmission of chewing forces through total removable prostheses and the resulting possible complications. They will get acquainted with methods of preparation of oral structures for total removable prostheses. Understand the principles of determining interstitial relationships and master all registration techniques. The graduate of the course acquires basic knowledge about the use of modern procedures and materials in dental prosthetics. Understands the issues of indications, contraindications and complications of dental implants. They will get acquainted with possible prosthetic solutions in implantology.

The graduate of the course obtains comprehensive information on the classification and diagnosis of jaw orthopedic anomalies. As part of the diagnosis of anomalies, he will be able to analyze models, cephalometric examination and clinical examinations of the patient. They will understand the principles of treatments; they will handle the issue of removable and fixed orthodontic appliances. They will get acquainted with their construction and anchoring elements. By completing the course, the student will gain a comprehensive overview of the diagnosis, treatment and rehabilitation of patients with orthopedic anomalies and understand the principles of interdisciplinary cooperation.

### **Dentoalveolar and maxillofacial surgery**

The graduates of dentoalveolar and maxillofacial surgery gain comprehensive knowledge about the principles of treatment in dentoalveolar surgery.

They will learn the principles of antisepsis, asepsis, disinfection and sterilization in oral and maxillofacial (OMF) surgery. They can treat inflammation of the pulpoperiodontal complex, subperiosteal and submucosal abscesses of dentogenic origin. Acquires skills in the treatment of post-extraction alveolitis. Understand the principles of etiology, diagnosis, treatment and prevention of oroantral and oronasal communications.

The graduates gain comprehensive information on the issue of pre-prosthetic surgery and pre-prosthetic surgery on hard and soft tissues in the oral cavity. They will gain a comprehensive

knowledge of the issue of dental implants. They will get acquainted with methods of augmentation and controlled tissue regeneration in dentoalveolar and maxillofacial surgery. They will understand the issue of dentoalveolar surgical procedures complementing jaw orthopedic treatment. Understand the issues of mucogingival surgery. The graduates acquire comprehensive information and knowledge about the diagnosis and treatment of osteoarthritis. They will understand the issue of specific and non-specific inflammations in the oromaxillofacial area. They will master the issue of inflammation and necrosis of the bones of the facial skeleton.

They will gain a comprehensive knowledge of lymph node diseases in the OMF area, their etiology, symptomatology, diagnosis, differential diagnosis, treatment and complications.

Masters the issue of rational antibiotic treatment of OMF diseases. They will gain comprehensive knowledge about the diagnosis and treatment of salivary gland diseases.

They will gain a comprehensive knowledge of the etiology, symptomatology, differential diagnosis and treatment of diseases of the sledge joint. Understand the principles of diagnosis and surgical treatment of cysts in the oromaxillofacial area. By completing the course, the students acquire the ability to analyze, diagnose and design a treatment plan for patients with injuries in the maxillofacial area. By completing the course, the students acquire a comprehensive knowledge of malignant epithelial and mesenchymal tumors in the OMF area. They will learn the principles of complex multimodal treatment of malignant tumors of the OMF area. They will obtain comprehensive information about the different reconstruction methods and modern regenerative medicine in the OMF area.

They gain theoretical knowledge and basic practical experience in the differential diagnosis of pain in the facial area and gets acquainted with the possibilities of its treatment.

By completing the course, the students acquire a comprehensive knowledge of craniomaxillofacial anomalies, understands their classification, masters the principles of examination, diagnosis, treatment and understands the possibilities of complications.

They gain comprehensive knowledge of orthognathic surgical procedures, their indications, contraindications and complications.

Graduates of dentistry have adequate knowledge of theoretical, preclinical and clinical disciplines of dentistry. He is able to independently provide dental health care at the appropriate level of organizational structure, is also prepared for action in primary health care, masters the basic principles and organization of health care, basic medical legal standards necessary for the

exercise of the profession, thus obtaining the conditions to obtain the required expertise after fulfilling the prescribed practice, postgraduate studies and examinations.

Graduates can apply in all facilities of the Ministry of Health of the Slovak Republic, in state and non-state health facilities, in other functions e.g. as professional advisor within insurance companies, review doctor, in management and organizational functions in the field of health care, as well as in the field of pedagogy.

**B. Graduate of the combined first and second degree of the study program in dentistry at JLF UK:**

1. is fluent in at least one world language and passively in another world language
2. is able to work in a team of health professionals as a partner and possesses basic skills to organize the work of the team
3. is IT literate.

**C. The graduate of the combined first and second degree study program in dentistry at JLF UK is able to think creatively and follow the principles of evidence-based medicine in the basic theoretical, preclinical and clinical disciplines. He is able to:**

1. critically evaluate the level of evidence in preclinical and clinical studies,
2. to assess the ethical aspects of scientific work on animals and patients
3. prepare a basic scheme of the pre-clinical and clinical phase of drug and medical device testing
4. analyze and synthesize knowledge from the available literature in the form of a critical review article
5. prepare materials for the original scientific, resp. clinical study (defining the hypothesis, objectives, methods, structure of the results and their comparison with other authors, summarizing the conclusions).