

## **53. MASTER OF SCIENCE PROGRAM IN GENERAL MEDICINE, UNDIVIDED TRAINING PROGRAM**

### **1. Name of the Master of Science program: general medicine**

### **2. Providing the name of level and qualification in the diploma**

- the level of qualification: master (MSc)
- qualification: qualified physician
- the English name of qualification: Doctor of Medicine

The diploma certifies a doctoral degree, its abbreviated form is: MD

### **3. Field of training: medical and health sciences**

### **4. Duration of the program: 12 semesters**

### **5. Number of credits required for the master of science degree: 360 credits**

- orientation of the program: practice oriented (60-70%)
- credit requirements for the thesis: 20 credits
- minimum number of credits assigned to elective subjects / modules: 18 credits

### **6. Based on the uniform classification system for fields of training, the program is coded: 721**

### **7. Objectives of the Master of Science program and professional competencies**

The objective of the program is to train doctors of general medicine who, in the possession of the required knowledge, professional skills and abilities, and with a physician's perspective, attitude, sense of duty and behavior according to rules of professional conduct, can provide healthcare (under supervision). During their studies and at work these young physicians respect the patients' needs, human dignity and rights, and make decisions and act accordingly. They obtain the required knowledge and possess skills to be able to take part in the first and then, an additional specialist training program. Having passed the specialist exam they can work independently in their chosen area of medicine. They are prepared for continuing their studies in the medical training program (PhD program).

#### **7.1 Professional areas of competence to cover**

##### **7.1.1. The physician's**

###### **a) knowledge**

The physician is required to know

- the structure and functions of the healthy human body;
- the structure, interactions and reactions of biological molecules;
- the composition, structure and functions of cells, tissues and organs;
- the interactions of the organs and high-level integration in controlling the functions of the human body;
- the general and detailed description of diseases, causes and mechanisms of how diseases develop, the structural and functional changes caused by diseases, the relationship between somatic and psychological dysfunction, the visible and measurable symptoms of diseases, with special regard to common diseases;
- the general procedures for the confirmation of a disease, the principles and practice of making a diagnosis, with special regard to common diseases;
- the principles of operation, the scope and practical usage of medical diagnostic devices;
- the most important clinical, laboratory and microbiological tests, including practical usage;
- the general and detailed principles and practice of curing diseases, the essence of procedures and interventions to cure diseases;
- the indications, contraindications and risks of medical procedures;
- the practical usage of basic pharmaceutical treatment, operative technique and physiotherapeutic procedures;
- the terminology and the nomenclature of medical science;
- the relationships among diseases, the interrelation of patient and society, and health hazards;
- the scientific basis of protecting, developing and restoring the health of the individual and of the society;
- the theoretical principles and practical applicability of (primary, secondary and tertiary) prevention, the theoretical basis of medical screening tests, and the methods and system of their practical implementation;
- the structure and operation of the healthcare and insurance systems, the structure of health care, and the basis of its management and economy;
- the levels and stages of rehabilitation;

- the information systems of modern health care, research and knowledge acquisition at the user's level;
- the most important principles of interpersonal relationships;
- the most important ethical aspects and special legal issues of a doctor's medical activities.

## **b) abilities**

The physician should be proficient in the following areas:

- examination of the patient, history-taking, physical examination;
- assessment of the patient's mental condition, clinical analysis and decision-making;
- giving information and advice, supporting the patient mentally;
- assessment of symptomatology, ordering tests, application of differential diagnostics, devising a treatment plan discussed with the patient and the nursing staff;
- recognizing and assessing symptoms and their severity, ordering the appropriate tests and interpreting the results;
- communication with the dying patient and his/her relatives;
- management of chronically ill patients;
- basic medical care, first aid and resuscitation in emergency cases;
- recognition and assessment of emergency cases;
- providing basic life support (BLS) according to the current guidelines of the medical profession;
- providing advanced life support (ALS) according to the current guidelines of the medical profession;
- primary medical care of traumas according to the current guidelines of the medical profession;
- ordering medications accurately and comprehensively;
- using medications and therapies based on clinical demand;
- evaluation of the treatment provided, consideration of possible benefits and risks;
- alleviation of pain and suffering;
- performing clinical interventions;
- taking the patient's blood pressure;
- performing venipuncture and inserting a cannula;
- using intravenous infusion therapy;

- giving subcutaneous, intramuscular and intravenous injections;
- using oxygen therapy;
- patient management and appropriate placement;
- basic wound treatment;
- performing blood transfusion;
- urinary catheterization;
- performing urinalysis;
- performing and evaluating ECG tests;
- performing and evaluating basic respiratory function tests;
- professional communication in a foreign language;
- recognition of stressful conditions related to a disease;
- recognition of alcohol and drug abuse and/or dependence.

**c) attitude**

The physician

- can effectively communicate in a medical setting;
- shows emotional intelligence and empathy while communicating with patients, colleagues, next of kin, disabled people or when disclosing bad news;
- communicates effectively in the case of asking for consent and in written communication including the documentation of medical charts, medical results and discharge reports ;
- communicates with emotional intelligence and empathy both personally and on the phone, and relying on an interpreter;
- handles aggression properly;
- is sensitive to the patient's psychological and social status, assesses and evaluates the psychological and social factors influencing (a specific) disease;
- is committed to scientific principles and medicine based on evidence;
- prefers scientific evidence in medical practice;
- thoughtfully collects professional arguments, evidence and decision criteria;
- evaluates the available medical literature critically;
- behaves ethically and acts legally in medical situations, and handles private and medical data confidentially;
- obtains and documents the patient's informed consent;

- behaves ethically and acts legally when determining the time of death and, if necessary, initiates an autopsy;
- complies with and applies current legislation.

#### **d) autonomy and responsibility**

The physician

- acts responsibly in emergency situations, recognizes life-threatening situations requiring medical intervention;
- gives first aid independently in accordance with the rules of the medical profession;
- takes the necessary steps for the injured or patient to get into a healthcare unit;
- acts efficiently and responsibly in the healthcare system, provides safe healthcare, acts according to the rules of the medical profession and uses measures to prevent the spread of infection;
- is committed to health promotion at both individual and population levels;
- makes responsible decisions concerning his/her own profession, recognizes his/her own medical needs, and makes sure that his/her own health condition does not compromise his professional tasks;
- is willing to do postgraduate training necessary for his/her job and required in the professional regulations, and makes and accepts professional evaluation;
- makes conscious decisions about his/her professional development.

## **8. Characteristics of MS training**

### **8.1. Professional characteristics**

List of the fields of sciences and specializations that the faculty consists of:

- basic and preparatory clinical knowledge for 136-188 credits (basic knowledge for 92-124 credits, preparatory clinical knowledge for 44-64 credit)
- basics of natural sciences (medical physics, biophysics, biostatistics, information science, knowledge of measurement technology, medical chemistry, biochemistry, cell biology, molecular biology, molecular genetics);

- basics of medical science [anatomy, histology and embryology, medical physiology, medical English terminology, pathology, pathophysiology, clinical physiology, microbiology, basics of immunology, clinical propedeutics (propedeutics in internal medicine and surgery, basic surgical techniques), clinical biochemistry, clinical laboratory diagnostics, medical imaging techniques, first aid and reanimation, preventive medicine and public health, medical pharmacology];
- basics of behavioral sciences (medical ethics, medical psychology, communication in medicine, sociology, social psychology);
- clinical medical knowledge for 138-186 credits: [internal medicine (cardiology, gastroenterology, hematology, clinical endocrinology, metabolic diseases, nephrology, clinical immunology, pulmonology), pediatrics, surgery (general, transplant, pediatric, neurologic, cardiac and vascular surgery), traumatology, anesthesiology and intensive care, gynecology and obstetrics, neurology, psychiatry, pharmacotherapy, ENT, infectology - infectious diseases, clinical genetics, clinical oncology, orthopedics, ology, emergency medicine, dermatology, radiology, ophthalmology, urology, dentistry and oral surgery, family medicine, forensic medicine].

## **8.2. Foreign language requirements**

In order to graduate from the Master's Degree program (MSc), students in the Hungarian program are required to have a certificate of an intermediate-level (B2), complex ("C"-type) state-recognized language examination in English or an equivalent school leaving examination certificate or diploma. In the English Program, students are required to pass the Hungarian final exam.

## **8.3. Requirements of the professional practice**

Professional practice includes summer practices (nursing, internal medicine, surgery) as well as the thematic professional practices of the 6<sup>th</sup> year/final-year medical education, such as: internal medicine, surgery, pediatrics, obstetrics and gynecology, neurology and psychiatry. The curriculum of the institution may require further mandatory practices. The duration and requirements of professional practices are determined by the academic program of the faculty.