Medical Doctor (MD) Programme

Higher education level: One-Cycle Undergraduate Medical Education

Language of instruction: English

Type of educational program: Academic

Detailed field description and code: 0912 Medicine

Qualification awarded: Medical Doctor (MD)

Duration of study: 6 years (12 semesters)

Program Scope: 360 ECTS

Head of Program:

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Precondition for access to the programme

The basic prerequisite for studying at the program is the English language competence at B2 level.

A) a person with a complete general education document or equivalent with the right to study at the European University on the basis of a ranking of scores on the Unified National Exams;

B) Compulsory subjects: Georgian language and literature; English language; Biology;

C) For the fourth subject, the entrant must choose one of the following subjects: Chemistry /Mathematics / Physics. The quota places allocated for each subject are 40%, 30%, 30%.

D) Minimum 80% for English language.

Eligibility to study at the program without passing the Unified National Exams:

• Persons are authorized to enroll into the University without passing the Unified National Exams, based on the order №224 / N of 29.12.2011 by the Minister of Education and Science of Georgia to approve "The procedure for submitting and reviewing documents by applicants / candidates for master degree / students having the right to study without passing the Unified National Examinations / General Entrance exam for Master's degree. These persons are required to confirm their English language proficiency at B2, in accordance with the "Language Competence Rule" of the European University.

The program shall also be attended by:

Students enrolled through mobility in accordance with the Order No. 10 / n (4.02.2010) of the Minister of Education and Science on Approval of the Rule and Fees of Transfer from one Higher Educational Institution to another Higher Educational Institution.

MD Prorgramme stucture

Undergraduate MD Curriculum is partly integrated, system-based, having both horizontally and vertically integrated disciplines.

Spiral model implies reviewing basic subjects during senior years of study in depth and in close correlation with clinical subjects.

MD Programme comprises 4 phases:

Phase I – Human Body Structure and Function (I-II yrs)

The foundation Phase covers fundamental concepts about the structure and function of human body, main concepts of biomedical sciences. During the first two years of study students will start learning with Introduction to structure of Human Body, Gene, Cell and Tissue, Scientific reasoning, Clinical and Professional Skills (Communication and Procedural skills, Medical Ethics), Medicine and Society. These integrated modules will be taught using different teaching-learning methods and activities (interactive lectures, role playing, practical work, working in simulation Lab, etc). Students learn key practical skills (interviewing patients) in clinical settings. Simulation engages students in experiential learning; students use virtual dissection to investigate regional anatomy of clinical cases, and manage high-fidelity mannequin case scenarios related to the regional anatomy. PBL (problem-based learning) sessions are delivered as longitudinal course for 2nd year students.

Phase II – Mechanisms of Health and Disease (III yr)

During the second Phase (preclinical year) the main emphasis is placed on Introduction to Clinical Medicine (Physical Diagnosis and Clinical Skills), basic Pathology and Pharmacology. This Phase focuses on the most common symptoms and signs of diseases that best illustrate basic principles. Students start mastering in physical diagnosis. This year students are trained in diagnostic thinking through case-based discussions related to different topics of medicine, integrating their knowledge and preparing for understanding clinical subjects next years. In Professional Development longitudinal module, they are engaged in clinical problem solving using different clinical scenarios (clinical reasoning course) emphasizing thoughtful analysis and synthesis of information and its clinical application.

Phase III - Core Clinical Clerkships (IV-V yrs)

During 4th and 5th years students learn main clinical subjects (clinical rotations) - Internal Medicine (system-based), Surgery, Obstetrics and Gynecology, Emergency Medicine, Pediatrics, Psychiatry, Radiology, ENT, etc. In parallel they are continuously trained Clinical and Professional Skills comprising professional behavior in Clinical Skills Lab and clinical settings. These modules are taught in clinical settings (Ambulatory settings and in Hospitals). At the end of each clerkship students pass integrated exam (OSCE).

Phase IV – Advanced Clinical Clerkships (VI yr)

Year 6 (graduation) - during graduating year students have clinical attachments mastering and gaining necessary competencies in Internal Medicine, Surgery, Obstetrics/Gynecology, Infectious Diseases, Family Medicine, Ophthalmology, Geriatrics, Pediatrics and Emergency Medicine. According to integration principles and spiral curriculum requirements they revisit basic subjects (Clinical Pharmacology and Medical Genetics). Students work in small groups and are assigned to a variety clinical activity in various inpatient and outpatient settings oriented to prepare graduating students to their future specialization in residency. By the end of the year students pass final integrated exam (OSCE).

MD programme mandatory credits – 332 ECTS

MD programme elective credits - 28 ECTS (14 ECTS – elective courses of major field of study, 14 ECTS - Elective/free courses)

Elective courses of major field of study: Pain Management, Medical Management, Laboratory Medicine, Clinical Nutrition, Allergy Medicine, Clinical Psychology, Precision Medicine, Clinical Technologies, Sexual Medicine, Narcology.

The aim of the programma

The aim of the programme is to raise a medical professional in accordance to modern international standards, (1) which will be able to apply principles of evidence-based medicine in practice, (2) use relevantly principles of ethics, research and communication in practice; (3) and be able to establish self and continue development within constantly changing professional environment. (4)

Competencies/Learning Outcomes of the programme

Competencies/Learning Outcomes
Generic Competencies

Knowledge and Understanding	The graduates will be able to: • Demonstrate comprehensive knowledge of the field-specific subjects, theoretical principles and reasearch methodology used in the medicine; • Critical approach to new information; • Analyze and integrate different information and make relevant conclusions that serves as a basis for further self-development.
Skills	The graduates will possess the following skills: • Ability to resolve complex problems in multidisciplinary team using the latest information; • Conducting research using appropriate and updated methodology; • Usage collected information in his/her professional activities; • Time-management skills - effectively plan the resources related to expected activities and to be responsible for the work done; • Usage the full spectrum of education and information resources; • Participate in meetings and communicate own opinions verbally and in writing; • Following the ethical and legal principles in the context of medicine, be able to protect the rights of the patient; • Conduct negotiations within a professional context and participate in conflict resolution with any person, regardless of its social, cultural, religious or ethnic background; • Communication with the colleagues and patients following the principles of justice, social and democratic values.
Responsibility and Autonomy	The graduates will be able to: • Adaptinng working in a team • Effectively plan the resourses related to expected activities; • To be responsible for the work done; • Understand the neccesity of staying up-to-date with self-learning; • Ability to lead a team as well as professional subordination/adatation and utilization of new knowledge.
	Field-specific competencies
1. Field knowledge	• Comprehensive knowledge of biomedical, clinical and social sciences; • Comprehensive knowledge of principles of diagnosis and treatment;

	• Deep knowledge of health promotion and disease prevention; • Deep knowledge of behavioral sciences and medical ethics.
2. Consulting patients	• Taking patient's history; • Performing physical examination; • Assessment patient's mental status; • Making appropriate clinical decisions; • Providing relevant explanation, support and advice.
3. Assess clinical presentations, order investigations, make differential diagnoses, and negotiate a management plan	• Recognize and assess the severity of clinical presentations; • Order appropriate investigations and interpret the results; • Make differential diagnosis; • Demonstrate effective clinical problem solving and judgement to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plan; • Negotiate an appropriate management plan with patients and their family members; • Provide care of a dying patient and his family members; • Manage chronic illness; Consider the patients' age, the nature of chronic disease, psychological impact, appropriate use of drugs in relevant way while managing the chronic diseases.
4. Providing first aid in emergency medical situations	• Identifying and assessing the emergency medical conditions; • Treatment of emergency medical conditions; • Providing basic first aid; age peculiarities in newborns and children; • Conducting the basic life support and cardiopulmonary resuscitation activities in compliance with current guidelines; • Provide advanced life support according to current guidelines; • Conducting the activities for enhance lifetime maintenance in accordance with the guidelines; • Treatment traumas according to current guidelines.
5. Drug prescription	• Prescribe drugs clearly and properly with consideration of patient's age; • Match appropriate drugs with clinical context; • Review appropriateness of drugs and other therapies and evaluate potential benefits and risks for the patient; • Provide patients with appropriate information about their medicines. • Treat pain and distress; • Consider compatibility of drugs before initiation of treatment;

	• Detect and report possible drug-drug interactions and adverse drug reactions.
6. Performing Practical Procedures	• Vital Signs: Pulse, respiration, temperature; • Measure Blood pressure; • Venipuncture (using simulator); • Venous Catheterization (using simulator); • Drug injection into the vein and us of infusion device (using simulator) • Subcutaneous and intramuscular injection (using simulator or giving to patient under supervision); • Oxygen therapy; • Patient Transportation and Treatment; • Suturing (using simulator); • Urinary Catheterization (using simulator) • Urinalysis (Screening Tests–Dipstick); • Electrocardiography; • Electrocardiography Interpretation; • Performing Respiratory Function Test.
7. Communicate effectively in a medical context	• Communicate with patient; • Communicate with colleagues; • Communicate in breaking bad news; • Communicate with patient's relatives; • Communicate with disabled peoples; • Communication in seeking informed consent; • Written communication (Including the medical records); • Communicate in dealing with aggression; • Communicate with those who require an interpreter; • Communicate with law enforcement agencies and mass media; • communicate with any person regardless of his/her social, cultural, religious and ethnic background; • Use patient-centred interviewing skills to effectively gather relevant biomedical and psychosocial information; • Use communication skills and strategies that help patients and theirmfamilies make informed decisions regarding their health.
8. The use of Ethical and Legal Principles in Medical Practice	• Maintain confidentiality; • Apply ethical principles and analytical skills to clinical care; • Obtain and record informed consent; • Issuing death certificate; • Requiring autopsy (in compliance with the Georgian Legislation);

	• Apply Georgian and international legislation during treatment; • Conducting medical practice in multi-cultural environment; • Respect the rights and dignity of patients, including the right of participation in decision making regarding the medical aid.
9. Evaluation of psychological and social aspects regarding patients' disease.	• Evaluating the psychological factors of disease detection and impacts on the patients; • Evaluating the social factors of disease detection and impacts on the patients; • Recognition of the stress related to disease; • Recognition of the drug and alcohol abuse; • Demonstrating the patient oriented skills while interviewing for gathering the psychosocial and biomedical information • Considering the patients' nonverbal behaviors for detecting the psychosocial factors related to the disease.
10. The use of knowledge, skills and principles based on evidence-based medicine	• Apply evidence in practice; • Carry out an appropriate literature search; • Critical analysis of the published literature, making conclusion and using them in practice; • The active use of evidences obtained through different literature sources and making the conclusions regarding the health conditions of patient on the basis of assessing the level of evidence.
11. Use information and information technology effectively in a medical context	• Keep accurate and complete clinical records • Use information technology in medical practice • Access specific information sources; • Store and retrieve information; • Keep personal records (portfolio); • Follow the requirements of confidentiality and data protection legislation; • Apply the principles, methods and knowledge of health informatics to medical practice.
12. Ability to apply scientific principles, methods and	• Knowledge of research methodology; • Research designing, planning, result processing and conclusion-making skills; • Ability to use the achievements of biomedicine in practice; • Report/review writing skills based on critical analysis of the research literature in biomedicine;

knowledge to medical practice and research	• The awareness of ethics of conducting scientific research.
13.Implementation of health promoting events, engage with public health care issues, efficient performance within the health care system	• Conducting the treatment that minimizes the risk of damage to the patient; • Implement measures for the prevention of infection spread; • Understanding ones' own health problems and evaluating ones' own health with regard to professional responsibilities; • Participation in health promotion events both on individual and population-wide level; • Demonstrating the leadership skills for the improvement of healthcare system; • Facilitating the changes in healthcare system for strengthening the services and improving the results; • Working with patients and their families for enhancing the healthy behaviors • Contributing to the improvement of community and population health.
14. Professionalism	Professional attributes • Probity, honesty, ethical commitment • Commitment to maintaining good practice, concern for quality • Critical and self-critical abilities, reflective practice • Empathy • Creativity • Initiative, will to succeed • Interpersonal skills • Leadership skills Professional working • Ability to recognize limits and ask for help • Ability to work autonomously when necessary • Ability to solve problems • Ability to make decisions • Ability to work in a multidisciplinary team • Ability to communicate with experts in other disciplines • Ability to lead others • Capacity to adapt to new situations • Capacity for organisation and planning (including time management) The doctor as expert • Capacity for analysis and synthesis • Capacity to learn (including lifelong self-directed learning) • Capacity for applying knowledge in practice

	• Ability to teach others • Research skills The global doctor • Appreciation of diversity and multiculturality • Understanding of cultures and customs of other countries • Ability to work in an international context • Knowledge of a second language • General knowledge outside medicine

Areas of Employment/Further Career Path

According to Georgia current legislation, a graduate of one cycle MD programme is not allowed to run the independent medical practice, she/he can get be employed as a junior doctor, implying performing the duties of a doctor according to the instructions and under the supervision of an independent medical practitioner (The Law of Georgia on Medical Practice, Article5). A graduate holding a higher medical institution diploma have the right to: a) complete postgraduate training programme (residency) to acquire the right to perform an independent medical practice after passing a state certification examination; b) carry out research (Master, PhD) and teaching activities in the theoretical fields of medicine, or other fields of health care that do not imply an independent medical practice (The Law of Georgia on Medical Activity, Article 17).

Programme evaluation system

The student knowledge assessment system complies with the rules for calculating credits of higher education programs approved by the Order N3 of the Minister of Education and Science of Georgia of January 5, 2007. Which allows:
A) Five positive grading:
Aa) (A) Frequent - 91-100 grading points;
Ab) (B) Very good - 81-90 points of maximum grading;
Ac) (C) Good - 71-80 points of maximum grading;
Ad) (D) Satisfactory - 61-70 points of maximum grading;
Ae) (E) Sufficient - 51-60 points for maximum grading.
B) Two types of negative grading:

Ba) (FX) Failed to pass - 41-50 points of maximum grade, which means that the student needs more work to pass and is given the right to take the additional exam once with independent work;
Bb) (F) Failed - 40 points or less of the maximum grade, which means that the work done by the student is not enough and he / she has to re-study the subject.

If a student receives a negative grade (FX), he / she is entitled to take an additional exam in the same semester. The interval between the final and the relevant additional exam should be not less than 5 days after the announcement of the results.