

European University

Catalog of educational programs

Faculty of Medicine



Educational Program

Medical Doctor

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

Heads of Program:

Prof. Dr. Zaza Avaliani, E-mail: avaliani.zaza@eu.edu.ge

Tinatin Gognadze, Associate Professor, E-mail: tinatin.gognadze@eu.edu.ge

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.

Structure of the program

The medical program is divided into 4 phases:

Phase I - Structure and functions of the human body (I-II course)

The fundamentals of medicine include the basic concepts of the biomedical sciences and the structure-function of the human body. During the first two courses, students will learn about the structure of the human body, life sciences and research principles in the field, clinical and professional skills (communication and procedural skills, medical ethics), and the basics of public health. The teaching of these integrated modules will be carried out using various teaching-learning methods and activities (interactive lectures, role-playing games, practical work, work in a simulation laboratory, etc.). Students will master key practical skills (patient interview) in a clinical setting. Through simulation, teaching students will gain experience-based knowledge; Students will also study regional anatomy through virtual dissection of specific clinical cases and discussion on mannequins. In addition, from the second year, students will be involved in a long-term problem-based learning (PBL) problem-based learning course.

Phase II - Health and Illness Mechanisms (Course III)

During the second phase (pre-clinical course), the focus is on the introduction to clinical medicine (propaedeutics and clinical skills), general pathology and pharmacology. This phase is mainly focused on the most common symptoms and signs of the diseases that most clearly reflect the basic concepts of these disciplines. In addition, students improve their physical tasting skills. During the III year, students learn diagnostic thinking by reviewing case studies from different medical disciplines, which in turn helps to integrate the knowledge gained and prepares students for a full understanding of the clinical subjects of which. Initiation in the program will take place from next year. Within the longitudinal module of clinical and professional skills, students are involved in the process of solving a clinical problem, which in turn is accomplished through a variety of clinical scenarios (clinical thinking course); This method focuses on in-depth analysis and synthesis of information among students, as well as its practical application in the clinical context.

Phase III - Basic Clinical Rotations (IV-V Course)

During the IV and V courses, students study the main clinical subjects in the form of clinical rotations - internal medicine (system-based), surgery, obstetrics and gynecology, emergency medicine, pediatrics, psychiatry, radiology, otorhinolaryngology, etc. In parallel, students continue to study

clinical and professional skills, which includes perfecting professional behavior in a clinical skills laboratory and clinical setting. These modules are taught in both outpatient and clinical settings. At the end of each rotation, the student passes an integrated test. (Test questions with multiple choice OSCE answers).

Phase IV - Clinical Rotations - Final Stage (VI Course)

VI, during the final year, students will have additional clinical activities to demonstrate and perfect their competencies in Internal Medicine, Surgery, Obstetrics-Gynecology, Infectious Diseases, Family Medicine, Ophthalmology, Geriatrics, Pediatrics and Gad. According to the requirements of the spiral curriculum and the principles of integration, basic subjects (e.g., pharmacology and medical genetics) are reviewed within the modules of the graduate courses. Under the same course, a small group of students is given a variety of outpatient and inpatient clinical assignments, the performance of which prepares graduate students for future specialization and postgraduate residency programs. At the end of the graduation course, students take the Integrated Examination (OSCE)

Compulsory component of the program - 332 credits

Elective component of the program - 28 credits (14 credits - Elective courses in the main field of study, 14 credits - Elective / free courses)

Elective courses in the main field of study: Pain Management, Medical Management, Laboratory Medicine, Clinical Nutrition, Allergology, Clinical Psychology, Precision Medicine, Clinical Technologies, Sexology, Necrology.

The purpose of the programme

The goal of the program is to prepare a professional of modern standards, which will be able to apply the principles of evidence-based medicine, ethics, research and communicational skills to his/her practice efficiently; to enhance the self-establishment and professional development in constantly changing environment.

Learning Outcomes

Competencies/Learning Outcomes	
Generic Competencies	
Knowledge and Understanding	The graduates will be able to: <ul style="list-style-type: none"> • Demonstrate comprehensive knowledge of the field-specific subjects, theoretical principles and reasearch methodology used in the medicine; • Critical approach to new information;

	<ul style="list-style-type: none"> Analyze and integrate different information and make relevant conclusions that serves as a basis for further self-development.
Skills	<p>The graduates will possess the following skills:</p> <ul style="list-style-type: none"> 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	<p>The graduates will be able to:</p> <ul style="list-style-type: none"> Adapting working in a team Effectively plan the resources related to expected activities; To be responsible for the work done; Understand the necessity of staying up-to-date with self-learning; Ability to lead a team as well as professional subordination/adaptation and utilization of new knowledge.
Field-specific competencies	
1. Field knowledge	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Taking patient's history; Performing physical examination; Assessment patient's mental status;

	<ul style="list-style-type: none"> • Making appropriate clinical decisions; • Providing relevant explanation, support and advice.
3. Assess clinical presentations, order investigations, make differential diagnoses, and negotiate a management plan	<ul style="list-style-type: none"> • 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, and appropriate use of drugs in relevant way while managing the chronic diseases.
4. Providing first aid in emergency medical situations	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.
	<ul style="list-style-type: none"> • Vital Signs: Pulse, respiration, temperature; • Measure Blood pressure; • Venipuncture (using simulator); • Venous Catheterization (using simulator);

<p>6. Performing Practical Procedures</p>	<ul style="list-style-type: none"> • Drug injection into the vein and use 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.
<p>7. Communicate effectively in a medical context</p>	<ul style="list-style-type: none"> • 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-centered interviewing skills to effectively gather relevant biomedical and psychosocial information; • Use communication skills and strategies that help patients and their families make informed decisions regarding their health.
<p>8. The use of Ethical and Legal Principles in Medical Practice</p>	<ul style="list-style-type: none"> • 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.

<p>9. Evaluation of psychological and social aspects regarding patients' disease.</p>	<ul style="list-style-type: none"> • 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.
<p>10. The use of knowledge, skills and principles based on evidence-based medicine</p>	<ul style="list-style-type: none"> • 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.
<p>11. Use information and information technology effectively in a medical context</p>	<ul style="list-style-type: none"> • 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.
<p>12. Ability to apply scientific principles, methods and knowledge to medical practice and research</p>	<ul style="list-style-type: none"> • 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; • The awareness of ethics of conducting scientific research.
<p>13. Implementation of health promoting events, engage with public health care issues, efficient performance within the health care system</p>	<ul style="list-style-type: none"> • 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;

	<ul style="list-style-type: none"> • 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.
<p>14. Professionalism</p>	<p><i>Professional attributes</i></p> <ul style="list-style-type: none"> • 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 <p><i>Professional working</i></p> <ul style="list-style-type: none"> • 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 organization and planning (including time management) <p><i>The doctor as expert</i></p> <ul style="list-style-type: none"> • 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 <p><i>The global doctor</i></p> <ul style="list-style-type: none"> • 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

Field of employment and opportunity to continue education

According to Georgia's current legislation, a graduate of one cycle MD program 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 program (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 points;

Ab) (B) Very good - 81-90 points;

Ac) (C) Good - 71-80 points;

Ad) (D) Satisfactory - 61-70 points;

Ae) (E) Sufficient - 51-60 points.

B) Two types of negative grading:

Ba) (FX) Failed to pass - 41-50 points, 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, 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.

The student will be admitted to the final exam if the minimum threshold for the midterm assessment is exceeded.

Credit can be awarded if the result obtained by the student meets the conditions:

A) Exceeded the minimum grade of the final assessment;

B) At least 51 points are accumulated out of a maximum of 100.

Educational Program Dentistry

Higher education level: One-Cycle Educational Program

Language of instruction: English

Type of Educational Program: Academic / Major

Detailed field description and code: 0911 Dental Studies

Qualification awarded: Doctor of Dental Medicine (DMD)

Duration of study: 5years (10 semesters)

Program Scope: 300 credits

Head of the Program:

Head of the educational program: Prof. Dr. Sophio Samkharadze, e-mail: sopho.samkharadze@eu.edu.ge

Co-head of the educational program: Asist. Marika Zurmukhtashvili, e-mail: marika.zurmukhtashvili@eu.edu.ge

Prerequisite for admission to the program

To the educational program in dentistry is admitted:

A person who has completed general education and who holds a certificate of completion thereof or its equivalent document and who gained the right to study at the European University on the basis of a ranking of scores of the Unified National Exams.

An entrant is required to pass following compulsory subjects:

- a) Georgian language and literature, English language (minimum requirement 80%), Biology.
- b) One of the following subjects: Chemistry / Mathematics / Physics. The quota places allocated for each subject are 40%, 30%, 30%.

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

Persons are authorized to be enrolled in the University without passing the Unified National Exams based on the order №224/5 of December 29, 2011 by the Minister of Education and Science of Georgia on “Approval of 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 level, 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 №10/5 of February 4, 2010 by the Minister of Education and Science of Georgia on “Approval of the Rule and Fees of Transfer from one Higher Educational Institution to another Higher Educational Institution”.

Structure of the program

Educational program in dentistry consists of:

- Components of major field of study – 270 credits, among them:
 - a) Compulsory components of major field of study – 258 credits;
 - b) Elective components of major field of study – 12 credits.
- Free components – 30 credits, among them:
 - a) Free components – 20 credits, which is oriented on development of general/transferable competencies;
 - b) Free components – 10 credits, which can be collected by a student through choosing any study course from university educational program of the same level by considering admission preconditions of the study course.

Educational program in dentistry can be divided into three parts:

Part I – Human Body Structure and Function (I-II years)

The basics of general medicine include basic concepts about the structure and function of the human body and biomedical sciences. During the first two years, students will learn about the structure of the human body, life sciences and research principles in the field, clinical and professional skills (communication and procedural skills, medical ethics), and the basics of public health. The teaching of these integrated modules will be carried out using different teaching methods (lectures, role-playing

games, practical work, work in a simulation laboratory, etc.). Students will master key practical skills (working on phantoms) in the phantom class. Through simulation teaching, students will gain knowledge-based experience; Students will also study regional anatomy through virtual dissection on mannequins and discussion of specific clinical cases. Besides, from the very first year, students will be involved in a problem-based learning course (PBL) that will be long-lasting. At the end of the specialty phantom courses, students take an integrated exam (MCQ and OSCE).

Part II - Mechanisms of Health and Illness (III-IV course)

Attention is paid to the clinical part (propaedeutic and clinical skills). This part is mainly focused on the most common symptoms and signs of the disease. At the same time, students improve their practical skills. During the III year, students learn diagnostic thinking by discussing cases in different medical fields, which in turn helps to integrate the acquired knowledge and prepares students to fully understand the clinical subjects, most of which is offered in the program from IV year. During the IV year, students study the main dental and clinical subjects in the form of clinical rotations - dermatology, pediatrics, otorhinolaryngology, etc. These modules are taught in both outpatient and clinical settings. The most important part is the inclusion of clinical courses of the major field of study, during which the students continue to master the clinical skills and symptoms of the dental diseases. At the end of the most study courses, students take an integrated exam (MCQ and OSCE).

Part III - Clinical Courses in Dentistry (V Course)

The third part is the continuation of clinical courses in the major field of study (Conservative, Surgical and Orthopedic Dentistry, Pediatric Dentistry and Pediatric Surgery, Orthodontics), during which students continue to study professional skills. During the V year, students will have additional clinical activities to strengthen and refine their competencies in the major field of study. At the end of some rotation, students take an integrated test. Within the same year, students are given a variety of clinical assignments, the completion of which prepares graduate students for future specialization and postgraduate residency programs.

The aim of the program

The program aims to train a professional dentist under modern international standards, who: Possesses the theoretical knowledge and practical skills required for professional activities (1), who qualitatively uses research, ethical and communication skills (2), develops professionally in an ever-changing environment (3).

Learning Outcome	A Description of the program Learning Outcomes
1	Describes the systems of the human body, its essential elements, tissues, their interconnections, developmental features, and functions; Explains the anatomical, physiological features of the body and the biochemical processes taking place in the living organism; Discusses the organism as an integrated system. Recognizes and characterizes cases of norm and pathology, identifies causes of pathologies. Lists the preventive measures and understands the necessity and importance of their implementation.
2	Identifies the construction of dental equipment, rules of operation and management. Lists the purpose of the dental instruments and medical and dental materials, methods of their application. Chooses the methods of aseptic and antiseptic, explains their importance in maintaining sanitary and hygienic standards. Conducts the waste management/utilization procedures.
3	Explains the etiology and pathogenesis of tooth soft and hard tissue diseases. Formulates a diagnosis, including differential diagnoses. As a result selects and implements modern and adequate diagnostic, prophylaxis and treatment methods, according to the patient's age and needs.
4	Interprets periodontal tissue and oral mucosa diseases, defines their diagnoses, including differential diagnosis. Evaluates, selects and implements the modern methods of diagnose, prevention and treatment.
5	Compares maxillofacial region odontogenic and non-odontogenic inflammation, neoplastic changes and traumatic injuries. Justifies conservative, surgical, reconstructive or restorative treatment needs.
6	Categorizes diseases of oral surgery. Determines traumatic injuries of the oral cavity. Chooses appropriate treatment methods depending on etiology and pathogenesis, diagnoses and differential diagnosis.
7	Interprets and describes anomalies of the jaws, determines etiological factors, differentiates them and makes the diagnoses. Based on the attained data chooses the correct orthodontic treatment tactics and the appropriate appliances.
8	Compares and differentiates various orthopedic diseases according to etiology, pathogenesis, degree and type of damage. Demonstrates diagnostic procedures and consequently chooses appropriate treatment methods.
9	Chooses the types and application methods of local and general anesthesia. Explains possible problems and can cope (govern) with complications of local anesthesia.

10	Can gather anamnesis, complete a medical card. Examines patient. Write down the examination data and keep recording; Choose the necessary additional examinations; Analyze and interpret the data of examination, conduct differential diagnosis and determine the diagnosis; Demonstrates basic clinical skills.
11	Defines and explains the importance of applying ethical norms and legal regulations in medical practice. Demonstrates verbal and written communication skills on issues related to the field, ability to design research, make detailed planning, process results and conclude; Discusses scientific research methodology;
12	Estimates and substantiates the need for further professional development and the need to keep up-to-date with the latest developments in the field.

Field of employment and opportunity to continue education

According to the Georgian current legislation, a graduate of one cycle educational program in dentistry is allowed to run the independent medical practice after obtaining state certificate giving him/her the right mentioned above (The Law of Georgia on Medical Practice, Article 7).

According to the law mentioned above (article 17), a graduate having a higher medical education have the right to:

- a) Complete postgraduate professional training program to acquire the right to perform an independent medical practice after passing a state certification exam;
- b) carry out research and teaching activities in the theoretical fields of medicine, or other fields of health care that do not imply an independent medical practice;
- c) Work as a junior doctor (intern).

A graduate of one cycle educational program in dentistry has right to continue further education on next level of higher education.

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 points;
 - Ab) (B) Very good - 81-90 points;

- Ac) (C) Good - 71-80 points;
- Ad) (D) Satisfactory - 61-70 points;
- Ae) (E) Sufficient - 51-60 points.

B) Two types of negative grading:

Ba) (FX) Failed to pass - 41-50 points, 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, 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.

The student will be admitted to the final exam if the minimum threshold for the midterm assessment is exceeded.

Credit can be awarded if the result obtained by the student meets the conditions:

- A) Exceeded the minimum grade of the final assessment;
- B) At least 51 points are accumulated out of a maximum of 100.

Educational Program Dentistry

Higher education level: One-Cycle Educational Program

Language of instruction: Georgian

Type of Educational Program: Academic / Major

Detailed field description and code: 0911 Dental Studies

Qualification awarded: Doctor of Dental Medicine (DMD)

Duration of study: 5 years (10 semesters)

Program Scope: 300 credits

Head of the Program:

Head of the educational program: Prof. Dr. Sophio Samkharadze, e-mail: sopho.samkharadze@eu.edu.ge

Co-head of the educational program: Asist. Marika Zurmukhtashvili, e-mail: marika.zurmukhtashvili@eu.edu.ge

Program Admission Precondition

To the educational program in dentistry is admitted:

A person who has completed general education and who holds a certificate of completion thereof or its equivalent document and who gained the right to study at the European University on the basis of a ranking of scores of the Unified National Exams.

An entrant is required to pass following compulsory subjects:

- a) Georgian language and literature, English / German / French / Russian language, Biology.
- b) One of the following subjects: Chemistry / Mathematics / Physics. The quota places allocated for each subject are 40%, 30%, 30%.

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

Persons are authorized to be enrolled in the University without passing the Unified National Exams based on the order №224/5 of December 29, 2011 by the Minister of Education and Science of Georgia on “Approval of 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 level, 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 №10/5 of February 4, 2010 by the Minister of Education and Science of Georgia on “Approval of the Rule and Fees of Transfer from one Higher Educational Institution to another Higher Educational Institution”.

Structure of the program

Educational program in dentistry consists of:

- Components of major field of study – 270 credits, among them:
 - c) Compulsory components of major field of study – 258 credits;
 - d) Elective components of major field of study – 12 credits.
- Free components – 30 credits, among them:
 - c) Free components – 20 credits, which is oriented on development of general/transferable competencies;
 - d) Free components – 10 credits, which can be collected by a student through choosing any study course from university educational program of the same level by considering admission preconditions of the study course.

Educational program in dentistry can be divided into three parts:

Part I – Human Body Structure and Function (I-II years)

The basics of general medicine include basic concepts about the structure and function of the human body and biomedical sciences. During the first two years, students will learn about the structure of the human body, life sciences and research principles in the field, clinical and professional skills (communication and procedural skills, medical ethics), and the basics of public health. The teaching of these integrated modules will be carried out using different teaching methods (lectures, role-playing games, practical work, work in a simulation laboratory, etc.). Students will master key practical skills

(working on phantoms) in the phantom class. Through simulation teaching, students will gain knowledge-based experience; Students will also study regional anatomy through virtual dissection on mannequins and discussion of specific clinical cases. Besides, from the very first year, students will be involved in a problem-based learning course (PBL) that will be long-lasting. At the end of the specialty phantom courses, students take an integrated exam (MCQ and OSCE).

Part II - Mechanisms of Health and Illness (III-IV course)

Attention is paid to the clinical part (propaedeutic and clinical skills). This part is mainly focused on the most common symptoms and signs of the disease. At the same time, students improve their practical skills. During the III year, students learn diagnostic thinking by discussing cases in different medical fields, which in turn helps to integrate the acquired knowledge and prepares students to fully understand the clinical subjects, most of which is offered in the program from IV year. During the IV year, students study the main dental and clinical subjects in the form of clinical rotations - dermatology, pediatrics, otorhinolaryngology, etc. These modules are taught in both outpatient and clinical settings. The most important part is the inclusion of clinical courses of the major field of study, during which the students continue to master the clinical skills and symptoms of the dental diseases. At the end of the most study courses, students take an integrated exam (MCQ and OSCE).

Part III - Clinical Courses in Dentistry (V Course)

The third part is the continuation of clinical courses in the major field of study (Conservative, Surgical and Orthopedic Dentistry, Pediatric Dentistry and Pediatric Surgery, Orthodontics), during which students continue to study professional skills. During the V year, students will have additional clinical activities to strengthen and refine their competencies in the major field of study. At the end of some rotation, students take an integrated test. Within the same year, students are given a variety of clinical assignments, the completion of which prepares graduate students for future specialization and postgraduate residency programs.

The aim of the program

The program aims to train a professional dentist under modern international standards, who: Possesses the theoretical knowledge and practical skills required for professional activities (1), who qualitatively uses research, ethical and communication skills (2), develops professionally in an ever-changing environment (3).

Learning Outcome	A Description of the program Learning Outcomes
1	Describes the systems of the human body, its essential elements, tissues, their interconnections, developmental features, and functions; Explains the anatomical, physiological features of the body and the biochemical processes taking place in the living organism; Discusses the organism as an integrated system. Recognizes and characterizes cases of norm and pathology, identifies causes of pathologies. Lists the preventive measures and understands the necessity and importance of their implementation.
2	Identifies the construction of dental equipment, rules of operation and management. Lists the purpose of the dental instruments and medical and dental materials, methods of their application. Chooses the methods of aseptic and antiseptic, explains their importance in maintaining sanitary and hygienic standards. Conducts the waste management/utilization procedures.
3	Explains the etiology and pathogenesis of tooth soft and hard tissue diseases. Formulates a diagnosis, including differential diagnoses. As a result selects and implements modern and adequate diagnostic, prophylaxis and treatment methods, according to the patient's age and needs.
4	Interprets periodontal tissue and oral mucosa diseases, defines their diagnoses, including differential diagnosis. Evaluates, selects and implements the modern methods of diagnose, prevention and treatment.
5	Compares maxillofacial region odontogenic and non-odontogenic inflammation, neoplastic changes and traumatic injuries. Justifies conservative, surgical, reconstructive or restorative treatment needs.
6	Categorizes diseases of oral surgery. Determines traumatic injuries of the oral cavity. Chooses appropriate treatment methods depending on etiology and pathogenesis, diagnoses and differential diagnosis.
7	Interprets and describes anomalies of the jaws, determines etiological factors, differentiates them and makes the diagnoses. Based on the attained data chooses the correct orthodontic treatment tactics and the appropriate appliances.
8	Compares and differentiates various orthopedic diseases according to etiology, pathogenesis, degree and type of damage. Demonstrates diagnostic procedures and consequently chooses appropriate treatment methods.
9	Chooses the types and application methods of local and general anesthesia. Explains possible problems and can cope (govern) with complications of local anesthesia.
10	Can gather anamnesis, complete a medical card. Examines patient. Write down the examination data and keep recording; Choose the necessary additional examinations; Analyze

	and interpret the data of examination, conduct differential diagnosis and determine the diagnosis; Demonstrates basic clinical skills.
11	Defines and explains the importance of applying ethical norms and legal regulations in medical practice. Demonstrates verbal and written communication skills on issues related to the field, ability to design research, make detailed planning, process results and conclude; Discusses scientific research methodology;
12	Estimates and substantiates the need for further professional development and the need to keep up-to-date with the latest developments in the field.

Field of employment and opportunity to continue education

According to the Georgian current legislation, a graduate of one cycle educational program in dentistry is allowed to run the independent medical practice after obtaining state certificate giving him/her the right mentioned above (The Law of Georgia on Medical Practice, Article 7).

According to the law mentioned above (article 17), a graduate having a higher medical education have the right to:

- a) Complete postgraduate professional training program to acquire the right to perform an independent medical practice after passing a state certification exam;
- b) carry out research and teaching activities in the theoretical fields of medicine, or other fields of health care that do not imply an independent medical practice;
- c) Work as a junior doctor (intern).

A graduate of one cycle educational program in dentistry has right to continue further education on next level of higher education.

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 points;
 - Ab) (B) Very good - 81-90 points;
 - Ac) (C) Good - 71-80 points;

Ad) (D) Satisfactory - 61-70 points;
Ae) (E) Sufficient - 51-60 points.

B) Two types of negative grading:

Ba) (FX) Failed to pass - 41-50 points, 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, 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.

The student will be admitted to the final exam if the minimum threshold for the midterm assessment is exceeded.

Credit can be awarded if the result obtained by the student meets the conditions:

A) Exceeded the minimum grade of the final assessment;

B) At least 51 points are accumulated out of a maximum of 100.

Educational Program

Medical Doctor

Education level: One-cycle educational program

Language of instruction: Georgian

Type of educational program: Academic, major

Name and code of the detailed field: 0912 Medicine

Qualification to be awarded: Medical Doctor (MD)

Duration of study: 6 Year (12 semester)

Educational program length: 360 ECTS

Head(s) of the Educational Program :

Prof. Dr. Zaza Avaliani, E-mail: avaliani.zaza@eu.edu.ge

Tinatin Gognadze, Associate Professor, E-mail: tinatin.gognadze@eu.edu.ge

Prerequisite for admission to the program

The following are admitted to the one-cycle educational program of a Medical Doctor:

A person with a certificate of complete general education or a document equivalent to it, who obtains the right to study at European University based on ranking the scores obtained on the Unified National Examinations.

To enroll in the program, the entrant is required to pass the following subjects:

- A) Georgian language and literature, English / German / French / Russian language, biology.
- B) One of the following subjects: Chemistry / Mathematics / Physics. Quoted seats for each subject are - 40%, 30%, 30%.

They have the right to study at the program without passing the Unified National Examinations:

Persons who, on the basis of the order of the Minister of Education and Science of Georgia № 224 / N of December 29, 2011 "On Approval of the Procedure for Submitting and Discussing Documents by Applicants / Master's Candidates / Students eligible to study at the Higher Education Institution without passing the Unified National Examinations / Common Master's Examinations" have the right to enroll in the University without passing the unified national exams. The mentioned persons are

obliged to prove their Georgian language proficiency at B2 level in accordance with the "Rules for Determining the Language Competence of a European University Student".

The program will also allow:

The order of the Minister of Education and Science of Georgia №10 / N (4.02.2010) on the “Rules for Transfer from the Higher Education Institution to Other Higher Education Institutions and Approval of Fees” students shall be enrolled in accordance with the mobility rules.

Structure of the program

The one-cycle educational program of a Medical Doctor is partially integrated. The main feature of the integrated program is the vertical and / or horizontal integration of basic and clinical subjects.

Vertical integration involves the integration of basic and clinical subjects into one curriculum by system and / or syndrome. In horizontal integration, unification refers to contiguous objects in the basic or clinical aspect, when unification takes place mainly around the system. This approach helps not only to give the student static knowledge but also to develop flexible clinical thinking. An integrated and semi-integrated program creates a curriculum that helps the student develop critical thinking and determine a path to self-development.

In an integrated program, different sources of information from different domains intersect in favor of a unified concept. This, in turn, helps the student to combine knowledge and skills gained from different sources in the context of a real clinical situation.

In the process of developing a one-cycle educational program of a Medical Doctor, adjacent basic training courses were integrated around the human body systems within the framework of partial integration. Parts of the presentation and analysis of clinical cases were also included in the same training courses, which serve to bring the student closer to the real clinical practice at the very beginning of the education process. The combination of clinical training courses took place around the main directions, which provides the student with systematic thinking in the clinical aspect.

The one-cycle educational program of a Medical Doctor includes the field of basic education and free components, namely:

- Basic education components with a total of 334 credits. between them:
 - A) Compulsory components in the field of basic education with an amount of 324 credits (including a research component of 10 credits and 20 credits for teaching in a clinical skills center / laboratory);
 - B) 10-credit elective courses in the field of basic education;

- The educational program also provides a free component with 26 credits, including:
 - A) A mandatory free component of 16 credits focused on the development of general transfer skills;
 - B) Elective free component with 10 credits focused on general transfer skills development / free component with 10 credits, within which the student is given the opportunity to choose courses from any relevant educational program at the university, subject to the prerequisites for admission to the course.

The Medical Doctor program is divided into 4 phases:

Phase I - Structure and Functions of the Human Body (I-II Course)

The basic phase of medicine includes horizontal integrated modules: human body I, II, III, IV - which include musculoskeletal, cardiovascular, respiratory, digestive, endocrine and urogenital system Anatomy, physiology and radiology, On functioning and radiological picture. Genes, cells and tissues I, II, III, IV - Integrated life sciences: biochemistry, cell biology, histology / embryology, biophysics, immunology and microbiology. Clinical and professional skills I, II, III, IV - Modules from the very first semester of the program include clinical practice, communication with the patient and the study of practical skills. Within the integrated modules, Medicine and Society I, II and Scientific Reasoning I, II The student is introduced to the basics of public health and scientific research skills in the very first phase. These courses will be taught through various teaching-learning methods and activities (lectures, PBL, role-playing games, practical work, work in a simulation laboratory, etc.). Students will study regional anatomy through virtual dissection and the use of mannequins.

Phase II - Health and Illness Mechanisms (Course III)

At the pre-clinical training stage, the main focus is on discussing aspects of human illness such as pathology, disease development mechanisms, and treatment mechanisms. In addition, students learn diagnostic thinking by reviewing cases in different medical fields and perfect their physical examination skills within integrated modules: Basics of Disease and Treatment I, II (Basics of Pathology, Basics of Pharmacology). Introduction to Clinical Diagnosis I, II - Physical Diagnosis, Clinical Skills. In the same phase the student masters neuroanatomy, neurophysiology and behavioral science in an integrated module of brain, mind and behavior. The acquired knowledge prepares students for a full understanding of clinical subjects, which will start in the program from next year. Within the longitudinal module of clinical and professional skills, students are involved in the process of solving clinical problems, which in turn is carried out through various clinical scenarios (clinical thinking course). This method focuses on in-depth analysis and synthesis of information by students, as well as its practical application in a clinical context.

Phase III - Basic Clinical Phase (Course IV-V)

During the IV and V courses, students study the main clinical subjects in the form of clinical rotations - internal medicine (system-based), surgery, obstetrics and gynecology, emergency medicine, pediatrics, psychiatry, radiology, otorhinolaryngology, etc. In parallel, students continue to explore clinical and professional skills that include perfecting professional behavior in the simulation center and clinical setting. These courses are taught in both outpatient and clinical settings.

Phase IV - Final stage of the clinical phase (VI course)

VI, during the final year course, students develop and perfect their competencies in internal medicine, surgery, obstetrics and gynecology, infectious diseases, family medicine, geriatrics, pediatrics and emergency medicine. According to the requirements of the spiral curriculum and the principles of integration, the basic subjects (for example: Pharmacology and Medical Genetics) are reviewed within the modules of the graduate courses. Under the same course, a small group of students are given a variety of outpatient and inpatient clinical assignments, the performance of which prepares graduate students for future specialization and postgraduate residency programs.

The components of the curriculum, the amount of component credits, the prerequisites, and the distribution of the components according to the semesters are defined in the appendix to the syllabus of the program.

The purpose of the program

The one-cycle educational program of a Medical Doctor aims to train a competitive professional in accordance with modern international standards, who: possesses the theoretical knowledge and practical skills required for professional activities (1); Guided by the principles of evidence-based medicine (2); Uses research and communication skills (3); Shares ethical norms and principles (4); Professionally evolving in an ever-changing environment (5).

Learning Outcomes

1. Field knowledge	<ul style="list-style-type: none">• Profound knowledge of biomedical, behavioral, clinical and social disciplines;• Describes the principles of diagnosis and treatment;• Describes health promotion and disease prevention;• Describes the ethical and legal principles of medical practice;• Analyzes the role of the doctor in the health care system.
---------------------------	---

<p>2. Giving a consultation to the patient</p>	<ul style="list-style-type: none"> • Collects anamnesis; • Conducts a physical examination; • Assesses the status of the patient's psycho-emotional state; • Makes valid clinical decisions; • Gives patients advice and explanations, finds their support.
<p>3. Evaluation of clinical case, appointment of examinations, differential diagnosis, discussion of disease management plan</p>	<ul style="list-style-type: none"> • Assesses the complexity of the clinical manifestation of the disease, identifies them; • Appoints relevant investigators, interprets the results; • Conducts a differential diagnosis; • Discusses the disease management plan with patients and their caregivers; • Establishes a plan for the management of the patient's condition, in collaboration with the patient and his environment; • Cares for the terminal patient and his / her environment; • Manages chronic diseases.
<p>4. Assistance in case of emergency medical condition (first aid and carry out resuscitation measures)</p>	<ul style="list-style-type: none"> • Identifies and evaluates emergency medical conditions; • Provides basic first aid, taking into account age characteristics (children, the elderly); • Implements basic life-saving measures in accordance with current guidelines; • Carries out extended life-saving measures in accordance with current guidelines; • Treats injuries in accordance with current guidelines.
<p>5. Prescribing medications</p>	<ul style="list-style-type: none"> • Prescribe medication clearly and correctly, taking into account the age of the patient; • Chooses drugs according to the clinical context; • Assesses the suitability of medications and other treatments for potential benefit and risk; • Manages pain and distress; • Analyzes drug compatibility and interaction when prescribing treatment.

<p>6. Carrying out practical procedures</p>	<ul style="list-style-type: none"> • Evaluates vital signs: pulse, respiration, temperature; • Measures pressure; • Measures saturation; • He / She washes his hands properly; Wears gloves properly; • Does venipuncture of the peripheral vein (using a simulator); • Performs peripheral vein catheterization (using a simulator); • Intravenous injection of the drug (using a simulator) • Injects subcutaneously and / or intramuscularly (using a simulator or under the supervision of a patient); • Delivers oxygen; • Describes patient transport and handling techniques; • Sutures (using a simulator); • Handles the wound and puts a bandage; • Does bladder catheterization (using a simulator); • Describes the technique of taking urine analysis; • Receives an electrocardiogram; • Interprets an electrocardiogram; • Conducts functional tests of the respiratory system; • Uses inhalation preparations correctly.
<p>7. Effective communication in a medical context</p>	<ul style="list-style-type: none"> • Effectively establishes communication with the patient; • Effectively establishes communication with colleagues; • Effectively communicates when reporting bad news; • Effectively establishes communication with the patient's environment; • Effectively communicates with people with disabilities; • Communicates effectively to obtain informed consent; • Maintains written communication (including the production of medical records); • Copes with aggressive and conflict situations through appropriate communication; • Effectively communicates with patients through a support person; • Establishes proper communication with law enforcement agencies and the media as needed; • Establishes communication with any person, regardless of their social, cultural, religious and ethnic background.
<p>8. Use of ethical and legal principles in medical practice</p>	<ul style="list-style-type: none"> • Protects privacy; • Uses ethical principles and analytical skills during treatment; • Obtains informed consent if necessary and makes the appropriate record; • Issue a death notice; • Requests autopsy in cases provided by the legislation of Georgia; • Uses the current norms of Georgian and international legislation during treatment; • Effectively manages medical activities in a multicultural society.

<p>9. Assess the psychological and social aspects of the patient's illness</p>	<ul style="list-style-type: none"> • Assesses the psychological factors of the manifestation of the disease and its impact on the patient; • Assesses the social factors of disease manifestation and its impact on the patient; • Identifies disease-related stress; • Establishes medicament and alcohol dependence.
<p>10. The use of evidence-based medicine principles, skills and knowledge</p>	<ul style="list-style-type: none"> • Uses evidence in medical practice; • Correctly defines and conducts literary research; • Critically evaluates published literature. Draws conclusions correctly and uses them in practical activities.
<p>11. Use of the latest information and information technologies in the medical context</p>	<ul style="list-style-type: none"> • Properly maintains clinical records and keeps them complete; • Uses information technology in medical practice; • Searches for specific information resources; • Stores information and uses it accordingly; • Properly maintains and uses personal records.
<p>12. Applying the principles, methods and knowledge of scientific activities in medical practice and research</p>	<ul style="list-style-type: none"> • Properly uses the methodology of conducting scientific research; • Develops research design, plans in detail, processes the results obtained and draws conclusions; • Uses the achievements of biomedical sciences in practical activities; • Writes reviews / reports at the academic level based on critical analysis of the existing scientific literature in the field of biomedicine; • Uses ethical principles of scientific research production.
<p>13. Implement health promotion measures, involvement in public health issues, work effectively in the health care system</p>	<ul style="list-style-type: none"> • Chooses treatment with minimal risk of harm to the patient; • Takes appropriate measures to prevent the spread of infection; • Adequately assesses one's own health problems in relation to professional duties; • Analyzes the importance of involvement in health promotion activities at the individual and population level.
<p>14. Professionalism</p>	<p>General characteristics of professionalism:</p> <ul style="list-style-type: none"> • Upholds the principles of impartiality, integrity and ethics; • Carries out medical activities with proper quality; • Expresses critical and self-critical attitudes, accepts criticism; • Expresses empathy (compassion); • Reveals creativity; • Reveals initiative, expresses a desire for success; • Demonstrates the ability to constantly update knowledge; • Reveals interpersonal skills. • Demonstrates group work skills;

	<p>Professionalism in activities:</p> <ul style="list-style-type: none"> • Analyzes the limits of its capabilities and asks for help (if needed); • Demonstrates leadership skills; • Acts independently as needed; • Cutting problems; • Makes decisions; • Works in a multidisciplinary team; • Establishes communication with experts in other disciplines; • Adapts to new situations; • Plans and manages organizational processes, manages time efficiently. <p>Doctor as expert:</p> <ul style="list-style-type: none"> • Analyzes and draws a conclusion; • Demonstrates learning and teaching skills of others; • Demonstrates knowledge in practical activities; • Demonstrates research skills; <p>Doctor in a Global Context:</p> <ul style="list-style-type: none"> • Has the ability to work in a multicultural society to realize their diversity; • Demonstrates respect for the culture and peculiarities of other countries; • Operates in an international context; • Speaks a second language; • Has general knowledge, beyond the medical field.
--	---

Field of employment and opportunity to continue education

According to the current legislation of Georgia, a graduate of a one-level educational program of a certified MD has the right to perform independent medical activity in case of obtaining a state certificate certifying the right to independent medical practice (Law of Georgia on Medical Practice, Article 7).

According to the Law on Medical Activities (Article 17), a graduate with higher medical education has the right to carry out the following activities:

- A) Pass a postgraduate professional training course and obtain the right to independent medical practice after passing the state certification exam;
- B) Carry out research and pedagogical activities in theoretical fields of medicine or other fields of health care, which do not involve independent medical activities;
- C) Work as a junior doctor.

A graduate of a one-level educational program is eligible to continue his / her studies at the postgraduate level (doctoral).

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 points;

Ab) (B) Very good - 81-90 points;

Ac) (C) Good - 71-80 points;

Ad) (D) Satisfactory - 61-70 points;

Ae) (E) Sufficient - 51-60 points.

B) Two types of negative grading:

Ba) (FX) Failed to pass - 41-50 points, 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, 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.

The student will be admitted to the final exam if the minimum threshold for the midterm assessment is exceeded.

Credit can be awarded if the result obtained by the student meets the conditions:

A) Exceeded the minimum grade of the final assessment;

B) At least 51 points are accumulated out of a maximum of 100.