East-West University

One-Cycle Educational Program of Medical Doctor

WEB version

Introduction

The document represents One-Cycle Educational Program of Medical doctor of the Medical School at the East-West Teaching University. The program is developed by the group, which includes the representatives of selected academic and administration staff. The content and form of the program is based on the Medicine National Field Specification Document and conforming to the University's mission and strategic development plan. The program is the result of collective labor, judgment and discussion of all members of the group and is based on the experience accumulated through participating in medical education, and at the same time modern approaches in international practice.

Need for the Program

The medical work and activities of Georgia have centuries-old history, but because of the historical cataclysms in this part of Europe, formal training in the field is about 100 years old. Meanwhile the development of medical education as a science was not paid enough attention. Accordingly, the country has "discovered" for the past 25 years that in this aspect it is quick and clear to take on the existing international experience to address the challenges in the approach of globalization: to develop and promote the development of others. Consequently, the strategy of the Government of Georgia to facilitate the attraction of foreign entrants is correct and not only for changes but also for the development. There are many arguments out there, among two can be sufficient: (1) Georgian students (as well as foreigners) must have the opportunity to learn and develop in a competitive environment; (2) Georgian teachers (including those engaged in medical education) must have greater contacts and means to accumulate and share experiences. Furthermore, it is very important for program sustainability to ensure the graduates future employment, and the university's goal directly responds to the 21st century challenges. According to the World Health Organization:

- the number of doctors in Europe by 2030 will increase by 600,000.
- In every region of the world the demand for highly qualified doctor is increasing;
- in addition, the whole world (except the USA and Western Europe) profession is currently deficient and approximately 2.6 million doctors are "missing" in the entire world.

Program

Medical Doctor Educational Program includes one-cycle integrated medical education, where the successful graduate is awarded with the academic degree of medical doctor. Instruction takes place in English language. Admission to the program is carried out

in accordance with the procedure for the recognition, suspension and termination of the status of student in a one-cycle higher educational program, mobility, as well as pursuant to the rule of the recognition of education received during the study.

Pursuant to the law of Georgia on "Medical practices", a graduate of a one-cycle educational program (medical doctor) is not entitled to independently perform their duties. According to the same law "the right to independently perform medical practice has a citizen of Georgia or a foreign citizen or an individual without citizenship, who graduated an accredited higher medical institution of Georgia and pursuant to the law obtained the state certificate to independently conduct medical practice (after completing the relevant residency).

Employment areas include as follows:

- Medical practice as a junior doctor: Junior doctor performs the obligations and responsibilities under the supervision of an experienced physician whom having the right to conduct medical practice independently.
- Teaching and Scientific Activities: A person with a diploma of a medicine has the right to continue their studies for doctoral programs or to undergo a residency course and receive the right to independently perform medical practice after the passing unified state certification examination.

Program length and credit numbers

- Duration of the program is 6 years and total amount of credits are 360 ECTS.
- The academic year includes 40 working weeks (240 working days) and consists of two semesters - autumn semester (20 weeks) and spring semester (20 weeks). Among the semesters are holidays.
- Teaching on clinical courses is mainly under curation.
- The study of each 20-weeks semester gives the possibility to accumulate 30 credits (ECTS), which are distributed on training modules and courses, and the annual capacity is 60 credits.
- 1 credit equals 30 working hours, where, for vast majority, 16 hours are contact and 14 hours are for independent work.

Program prerequisites

Prerequisites for access to the program are determined according to Law of Georgia on higher education and requires citizens of Georgia to have a certificate of secondary school and passing of the unified national exams. Also, the status of University student can be obtained through mobility. The enrollment of foreign candidates is regulated by relevant legislation. Study without passing unified national exams on the program is allowed: Foreign citizens and stateless persons who have received full general or equivalent education in a foreign country; For Georgian citizens who have received full general or equivalent education in foreign countries and have learned the last 2 years of full general education in English.

The first special condition for accessing the educational program concerns with English language proficiency. The minimum level of English language competence in the case of enrollment by the Unified National Exams is 80% of the English language test. Entrants without the Unified National Examinations are required to present a certificate of at least B1 level of English language proficiency or must pass an English language proficiency test administered by the university in order to obtain the right to study on the program. **The second special condition** for admission to the educational program concerns the level of knowledge in the basic disciplines (biology, chemistry). When enrolling in the Unified National Examinations program, entrants must pass the Biology and Chemistry Exam and the minimum competency threshold for each subject is 50% of the maximum score on that Exam. Entrants without the Unified National Examinations are required to have a document certifying the level of competence in the subjects of Biology and Chemistry (for example, the results of the Unified Examinations of the country of entry) in order to qualify for the program, or pass the competency exam, which is administered by the University.

Program goals

The main goal of the program is to prepare qualified medical doctors. Therefore, the goals of the program are:

1. Prepare graduates with the knowledge necessary for medical activities in basic medical and clinical sciences;
2. Development of appropriate practical and clinical skills in the first cycle of medical education for the graduates;
3. Establishment and development of norms of professional ethics and professionalism for graduates;
4. Developing skills in the standard and nonstandard situations for the graduates and the ability to get rid of it;
5. Formation of the readiness of permanent medical professional development for the graduates.

Content of the program, description and organization

Integrated structure of the program (modules and subjects) serves to examine the human as a structure, function and development of a living body on each level of the organization (molecular organ systems and an individual); The program is also focused on changes related to diseases, damages, geriatrics, genetics, and developmental disorders and their treatment, internal and external factors affecting on solution.

Basic medical and clinical sciences, on a basic instruction stage are integrated in so called general (introduction) and special modules. General module represents essential part (course) in keeping contact with medical disciplines and its general understanding, but it also serves (represents a prerequisite) integrated understanding of the content of organized courses in special modules. Program "arrangement "of the special modules facilitates and is focused on the issues of medical sciences that are fundamental for medical practice, health and its assistance, in addition, it concerns fundamental understanding of diseases, traumas and disability prevention. So called special modules covers human body systems, herewith, each module includes more than one system, revising vertical modules several times aims expanding their knowledge and skills. (Spiral curriculum)

In total, this stage of medical educational program of medical doctor (MD) serves (i) facilitation of integration of basic and clinical sciences in clinical problem or/and medical context, that is also utterly important (ii) for their clinical instruction and practical stage and (iii) for further professional development.

The modules of the curriculum are organized according to 6 utterly important fields/directions: Structure of life, Control of life, Cycle of life, Preservation of life, Protection of life, Support of life. In addition, the program provides gradual acquisition of valuable knowledge and practice for clinical practice in prominent sectors of medical services.

Data base and management of learning tasks.

Study tasks and learning outcomes will be uploaded at University electronic-base and every student will have access to it. The students make use of it to be informed about module/course content; which will be a textbook for them to understand if they have acquired fundamentals of essential knowledge to conduct safe and professional medical practice. The survey will be conducted for academic staff, to have a faith that, delivered academic sessions and examination questions are in a full compliance with basic curriculum content.

The curriculum management team is responsible for implementing the course content and the delivery of the tasks. This group will receive reports from the module implementation team whose direct responsibility will be to ensure that the data is up-to-date, relevant, clear and relevant to the time that is necessary to study the modules.

Instruction in basic medical and clinical sciences

Studying of the basic medical and clinical sciences and clinical skills. Instruction in basic and clinical sciences, including in the classroom format implies examining relevant information for the patient's case (case based learning), which in most cases are based on the examining the cases (and/or the knowledge gained through the case analysis) and evaluating understanding of its clinical significance. At the same time, taking the peculiarities of each subject into account, problem based learning will frequently be used, when the students independently discuss specific problems, identify the problem solving ways and sequence of the actions.

Basic medical science and clinical sciences and clinical skills are taught in various modules throughout the instruction period.

The university plans to provide training in clinical skills specified in the various subjects will be studied in clinics relevant to the subject. Therefore, students will have access to appropriate clinical centers to develop clinical procedure and other skills. Students will also have clinical access to outpatient and hospitalized patients (the university's own clinical and affiliated databases) to practice and develop clinical and communication skills.

Access to the same databases and clinical rotation:

- Provide students with an in-depth knowledge of frequently occurring medical problems
- Help students develop clinical judgment and problem-solving skills at the patient's bed
- Enable students to understand the principles of medical care, formulate management plans
- Help students develop high standards of professional values and behavior using evidence-based and ethical approaches in the general healthcare and hospital environment.

Development of the scientific component.

For teaching and learning of the scientific component the program offers fundamentals of scientific research, (fundamentals of scientific research, biostatistics, working on the scientific paper and presentation) which aims to promote Medical students in developing scientific competence, which is important for their future medical practice, for proper understanding valuable modern

research results and professional development, for critical judgment of their own and other's work, clinical audit and based on the needs of the individual patient to promote safe clinical practice.

General courses and electivity

The program provides general education courses and also includes courses that can be elected. The choice serves to gain an in-depth understanding of topics relevant to medical practice (with a focus on a specific specialization) and also to develop an individualized curriculum for future career development of the student (e.g. more attention will be drawn on surgical disciplines if one plans to specialize in surgery in the future, etc.).

Final course

Represents General specialization course (sixth year of the program) and implies, through the rule of rotation, supervisory participation in clinical aspects and patient's care in the following specialties: internal surgeries, surgery, pediatrics, obstetrics gynecology, infectious, neurology. The aim of the final year is to give the students opportunity to consolidate the chances to apply accumulated knowledge in basic and clinical sciences in clinical practice. Because of this, in order to continue their studies in the final course, the student must have completed all the modules of the previous course. The student critically examines performed work (participation in patient's care, procedures which he saw or took part), real cases of the patients (their diagnostics, management, and other important issues) are critically examined, are registered in portfolio and Log-books; they will have a feedback from clinician-teachers about the performed tasks to review and evaluate them.

Instruction and learning methods

Lectures: The lecture is a creative process involving lecturer and student at the same time. The main goal of the lecture is to understand the concept of the subject of the study, which implies the creative and active perception of the presented material. The lecture should provide scientific and logically consistent understanding of the basic provisions of the study material. The lecture should provide an accurate analysis of the dialectical process of science and should be based on the possibility of student free thinking, understanding of basic scientific problems and understanding. The number of private lectures in different courses is different and has a declining dynamics.

Working Group: Combines all the learning methods that make the student practical skills, facilitates the gradual study of theoretical material, which is the basis for the development of the theoretical material using skills independently. Work in the working group may also be carried out by various methods, including basic methods and forms below.

- **Seminar:** Students will be able to enhance the lectures heard. By leading the workshop, a student or group of students will find and process additional information, prepares the presentation, write essay and others. The seminar will hear reports, discussions are held, and conclusions are made. The leading teacher of the seminar coordinates the processes of this process.
- **Practical training:** The purpose of practical training is the gradual study of theoretical material through solving specific tasks, which is the basis for the development of the theoretical material independently.
- **Role play:** The role played by the scenario allows students to look at different points of view and help them to develop an alternative viewpoint.
- **Discussion / debate:** The method increases the quality and activity of student engagement. Discussion can be overcome in debates and this process is not limited to the questions asked by the teacher. The method develops the student's ability to reason and to justify his opinion.
- **Problem Based and Case Based Learning (PBL, CBL):** During the interactive lectures and practical exercises, focusing on the medical problem and / or clinical significance is the supply and / or evaluation of the theoretical material, and / or evaluation, for the possibility of its (community) in-depth awareness and the possibility of applying the future (with the patient's bed). This method of teaching connects the learning process with decision-making and practical skills to solve problems that are necessary in both theoretical and practical medicine. In the process of working with the relevant course head / assistants, students discuss real clinical cases, develop possible problems, discuss diagnosis, diagnostic methods, learn the treatment plan, and listen to the opinions of others. As a result of applying this method to students encourages more deeply penetrate the core of the problem, identify and explore a variety of literature and case studies independently in order to receive a reasoned decision and abide by such decision, linking the basic theoretical knowledge of subjects in clinical subjects, develop independent and team work skills. The main characteristic of clinical cases and problems used in the exercise is: the instances are taken from real life experiences. Work on them allows students to integrate the theoretical knowledge into real life. The student is an active participant in the learning process, and the student is in the process of dealing with the problem: Student

(together with the group) finds out what to know about the problem, to find out the information that is needed independently. All this helps in effective and independent learning. CBL and PBL methods are really useful and are interesting for students and increase their inner motivation and interest in studying. Above mentioned methods are used from the first term.

During the PBL and CBL sessions, students work in small groups (the number of students in groups in different subjects may vary from 5 to 8). Students work in groups with the help of a teacher/tutor on a series of clinical problems/cases. They will consistently identify the learning task, find the information they need (including in relation to the patient), establish feedback, and use it to present a problem/case analysis and resolving plan. Typically, PBL and CBL sessions are the subject of several consecutive meetings: at the first meeting, the problem is posed by the tutor, and students discuss the problem, outline possible solutions, and share assignments. Subsequent meetings are followed by a discussion of the material presented by each student, followed by appropriate clarifications for the final solution of the problem.

- **Competence based instruction:** The students are provided with necessary trainings about medical procedures (in affiliated institutions); besides, they will be able to, firstly, within the scope of theoretical course (clinical and diagnostic fundamentals), then at the stage of clinical rotations and practice, have access with outpatients and hospital patients, also with colleagues (doctors, nurses, medical groups) for developing necessary competences (learning and practice at university belonged instruction bases and affiliated medical institutions). This is important for the development of clinical skills and their practical application.
- **Independent Learning**: The students will be assisted and stimulated to study independently; they will have access to textbooks, medical journals and information on patients.
- **E-learning:** It involves teaching based on Internet and multimedia means. It includes all components of the teaching process (goals, content, methods, means, etc.) which are realized by specific means.
- **Patient –oriented instruction:** The students will examine real patients (at every possible place). Patients make an important contribution to the student's learning, as they raise questions for the student to deal with (obtaining information, discussing, etc.).
- **Acquire clinical experience**: Simulators and simulators are actively used during training to develop basic clinical skills. At the same time, there is a significant emphasis on providing students with real clinical experience. Students learn more effectively when they have the opportunity to work with a clinical patient. Passive observation alone is not enough, so the student must judge and reflect (in the portfolio) on what he or she has seen and learned. Students should gain as much experience as possible in communicating with patients. To do this, they perform certain tasks as instructed by the physician, then discuss with the teachers and other students (for example, preparing real patient cases and presenting them for discussion), which also promotes the ability to work in a group.

Assessment Principles

The assessment system implies the gradual assessment of the curriculum results as a formative (current) and summative assessment (including the objectively structured clinical exam (OSCE) in the subjects that directly serve the practical clinical skills). In detail all these will be written in the relevant course syllabus.

Formative assessments are used to make sure the University Administration, academic staff and student immediately informed about their own progress; And according to the results of the assessment, the decision to re-study the individual student should be taken to eliminate the problem.

Student in the specified module is evaluated according to the activity and performed tasks of the module, and the teacher is authorized to produce a final examination by oral inquiry and appropriate work (positive evaluations in current assessment). The final exam in subjects included in the module is combined: contains tests and open questions and may be the Cases Analysis. The questions are organized into the relevant course material. The current and final evaluations scores form a semester assessment in the module (also subjects in the module). The positive assessment in all modules is the basis for admission to the student in the next semester.

While implementing educational program the student's minimal competence of midterm and final evaluation is presented in specific syllabus and the student is informed on the fact at the beginning of the term.

Assessment methods

Detailed description of assessment methods is in syllabuses and mainly consist of the following:

- MCQs –where the student chooses possible answer on shortly formulated questions or statements
- Open questions, where the students write short answers based on question content and examines and presents at the oral exam.
- Short cases, where the students write short answers based on case content analysis and examines and presents at the oral exam.
- PBL- Problem analysis: where the student raises a problem, selects relevant methods of problem solving, draws relevant conclusions, and makes reasoned decisions
- Objectively Structured Examinations (OSCE, OSPE, CEX): During the exam, students demonstrate clinical skills using simulators or on patient roles;
- Direct observation (assessment report) collecting evidence, that proves analytical and introspective skill of the student; Students describe how many patients have seen (and/or took part in management) with what diagnosis and what procedures and etc. where in medical competences (communication with patients, applying knowledge in practice etc.) the student is evaluated by the teacher.

Overall assessment of the module is calculated by the grade point average of the subjects it includes, that depends on the subjects and their credit numbers. Tasks / questions are prepared by the course administrators/leaders so as to cover all the learning outcomes of the syllabus content.

OSGE Exams:

The University understands that proper preparation is necessary for the OSCE exams and the University is working intensively in this direction the Clinical Examination Center regulation has been established and its supervisor has experience of conducting the OSCE exams.

Fortunately, currently there is a wealth of international experience available, and there are relevant guidelines and requirements, as well as case studies and typical questions and methods for assessing them. Some of our staff members have experience in organizing and conducting OSCE exams at various universities. Regulations of the Clinical Trial Center have already been developed and guidelines for OSCE-type tests have been prepared. We are planning to conduct relevant trainings and our staff will be trained. The University has a space for the Clinical Examination Center with proper equipment and materials. The additional equipment and materials for the clinical examination center is already purchased and will be available soon. In the future, the University intends to cooperate and collaborate with universities and institutions in the future in order to be able to take full-fledged OSCE exams.