PETRE SHOTADZE TBILISI MEDICAL ACADEMY

“ვამტკიცებ”
რექტორის მ/შ, ასოცირებული
პროფესორი

თ.გაიხარაშვილი

One-step educational program - Medicine

Faculty of Medicine

Academic Degree to be conferred – Medical Doctor (MD)

Name of the program: One-step educational program – Medicine

Level: One-step educational program is equals to the second stage of higher academic education.

Volume of the program:

The duration of integrated one-step educational program – medicine – 5 years, 10 Semesters, which according to the European Credit Transfer and Accumulation System (ECTS) corresponds to 360 credits: 72 credits per year, 35-37 credits – per semester. At Petre Shotadze Tbilisi Medical Academy one credit corresponds to 30 hours.

Academic Degree to be conferred: Medical Doctor

Language of instruction: English

Pre-admission: The admission of the person with full general education is accomplished on the basis of Unified National Exams as well as citizens from the foreign countries or Georgian citizens residing abroad without passing National Exams according to the acting legislation of Georgia.

The goal of the program: The development of a deep clinical thinking in students, to give them medical education according to the international standards, based on evidences necessary for their medical practical activities; to give a deep knowledge on public healthcare system and to realize the role of doctor in this system; the elaboration of clinical and communicative skills; the elaboration of the usage of modern methodology in medical practice and research; the elaboration of the skills for the participation in the presentation and discussion of the results obtained; the elaboration of ethical values and relations significant for the profession of Medical Doctor.

The tasks of the program:

- to give the knowledge of normal morphology of human organism and the functioning of organs and systems;
- to give the knowledge on the disorders developed in human organism at any pathological state;
- to give the knowledge of etiology of acute and chronic diseases, pathogenesis, clinical course, diagnostics and differential diagnostics;
- the elaboration of skills of proper orientation in the existing clinical symptoms and signs;
- to give the student a necessary knowledge of optimal planning of patient examination and if required, the beginning of the adequate treatment;
- the elaboration of clinical skills necessary for medical activities;
- the elaboration of research skills;
- to give the knowledge of the basis of public health, epidemiology, health care legislation;
- the elaboration of skills for patient effective management;

- the elaboration of skills for proper management of disease prevention;
- the elaboration of skills for communication of proper relations with patients, colleagues and the society;
- the elaboration of independent learning and positive attitude to the learning;
- the elaboration of skills in making of good quality medical records;
- the elaboration of the identification, formulation and the ability of proper decision of patients problems in the process of professional activities by means of critical approach and by the demonstration of the attitude oriented to the research.

The educational program provides the following:

- to give the student the knowledge and the ability of its realization;
- the ability of the usage of obtained knowledge in the practice;
- the ability of making of well-reasoned conclusion;
- the ability of the communication with the patient and the society;
- the ability of the management of independent learning, as well as the ability of extending of the knowledge during the professional activities;
- the ability of realization of values necessary for medical activities.

The methods for gaining the results of education:

In the process of learning the following forms of interrelations with students will be used: lecture, group study, seminars, practical training, individual work, the participation in the research, etc. Interactive lectures will be carried on as the presentations created according to the PowerPoint program. The posters, atlases, computer programs, video versions of conducting of various surgical operations and manipulations will be used at the studies. During the studies of clinical disciplines, the discussion of clinical cases will take place by means of discussion of situational tasks and role-games (patient-doctor), as well as in clinical conditions just by the patient's bedside. The students will develop clinical skills by the use of simulators and models in Tbilisi Medical Academy Student's Center for clinical skills. The students will develop research skills by operations and manipulations, carried out in laboratory rats. The scientific presentations based on reviews or investigation will take place both during the process of learning and annual student scientific conferences. With the aim to improve the results of the studies, taking into account the individual needs of students and proceeding from the necessity, the student will be given one on one consultation. Such as giving explanations to the interesting and unclear subjects, discussion of the midterm examination results, selection of the literature on the problem regarding the research, assistance in the analysis and preparation of student conferences.

In the last year of the studies such educational courses as Internal medicine, surgery III and obstetrics-gynecology will be completely focused on the elaboration of clinical skills; at the

clinic the students will extend the obtained theoretical knowledge and clinical skills developed on the simulators; under the supervision of the supervisor they will examine a patient, will carry out various medical manipulations and small invasive interventions, will be on duty in the departments.

At the beginning of both semesters of the completion year the students will choose one of the investigations offered by TMA which will be fulfilled on the basis of the supervisor's recommendations and by his/her direct guidance. At the end of the semester the students will perform the presentation of the work done and participate in the discussion.

Educational plan: The first year

Semester I

NN	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit
1	Human anatomy I	77	15	60	2	133	210	7
2	Cytology, embryology, general Histology	77	15	60	2	133	210	7
3	Cell biology	47	15	30	2	103	150	5
4	Biophysics	47	15	30	2	103	150	5
5	Basics of informative technologies	32	-	30	2	58	90	3
6	Introduction to biochemistry	62	30	30	2	88	150	5
7	Georgian language I	32	-	30	2	58	90	3
		374	90	270	14	676	1050	35

Semester II

NN	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit
1	Human anatomy II	77	15	60	2	133	210	7
2	Systemic histology	77	15	60	2	133	210	7
3	Genetics in medicine	47	15	30	2	103	150	5
4	General biochemistry	62	15	45	2	118	180	6
5	Physiology I	62	15	45	2	118	180	6
6	Communication skills	32	-	30	2	58	90	3
7	Georgian language II	32	-	30	2	58	90	3
		389	75	300	14	721	1110	37

The second year

Semester III

N	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit
1	Human anatomy III	77	15	60	2	133	210	7
2	Clinical biochemistry	62	15	45	2	118	180	6
3	Physiology II	62	15	45	2	118	180	6
4	Clinical anatomy	62	15	45	2	88	150	5
5	General pathology	62	15	45	2	118	180	6
6	Immunology	40	8	30	2	50	90	3
7	Base course of clinical skills/ patient's care	42	10	30	2	48	90	3
		407	93	300	14	673	1080	36

Semester IV

N	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit
1	Behavioral science	47	15	30	2	73	120	4
2	Systemic pathology I	62	15	45	2	118	180	6
3	Preventive medicine	47	15	30	2	73	120	4
4	Microbiology I	62	15	45	2	88	150	5
5	Diagnostics of internal diseases I/ Clinical examination of patients I	62	15	45	2	118	180	6
6	Bioethics and Legal bases of medical practice	47	15	30	2	73	120	4
7	General Pharmacology	47	15	30	2	73	120	4
8	Selective: 1. The Bases of psychology 2. Medical terminology	32	-	30	2	58	90	3
		406	105	285	16	674	1080	36

The third year

Semester V

N	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit
1	Diagnostics of internal diseases II/ Clinical examination of patients II	62	15	45	2	118	180	6
2	Microbiology II	62	15	45	2	88	150	5
3	Clinical pharmacology	47	15	30	2	73	120	4
4	Systemic pathology II	62	15	45	2	118	180	6
5	General surgery I	62	15	45	2	88	150	5
6	Radiology	62	15	45	2	88	150	5
7	First steps in research	32	-	30	2	58	90	3
8	Selective: 1. Introduction to clinical psychology 2. The history of medicine	32	-	30	2	58	90	3
		421	90	315	16	689	1110	37

Semester VI

NN	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit	Days
1	General surgery II	58	16	40	2	92	150	5	10
2	Internal diseases I	98	16	80	2	142	240	8	20
3	Clinical skills I	34	-	32	2	56	90	3	8
4	Public health	34	-	32	2	56	90	3	2 hrs per week
5	Epidemiology and Biostatistics	42	-	40	2	48	90	3	10
6	Obstetrics	76	14	60	2	104	180	6	15
7	Otorhinolaryngology	50	16	32	2	70	120	4	8
8	Selective: 1. Medical rehabilitation 2. Physiotherapy	30	-	28	2	60	90	3	7
		422	62	344	16	628	1050	35	78

The fourth year

Semester VII

NN	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit	Days
1	Internal diseases II	98	16	80	2	142	240	8	20
2	Surgery I	82	16	64	2	128	210	7	16
3	Gynecology	76	14	60	2	104	180	6	15
4	Dermatovenerology	78	16	60	2	102	180	6	15
5	Clinical skills II	34	-	32	2	56	90	3	2 hrs per week
6	Traumatology	64	14	48	2	86	150	5	12
7	selective: 1. Clinical toxicology 2. Occupational pathology	27	5	20	2	33	60	2	5
		459	81	364	14	651	1110	37	83

Semester VIII

NN	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit	Days
1	Surgery II	82	16	64	2	128	210	7	16
2	Neurology	78	16	60	2	102	180	6	15
3	Infectious diseases	70	12	56	2	80	150	5	14
4	Pediatrics I	78	16	60	2	102	180	6	15
5	Oncology, palliative care	42	8	32	2	48	90	3	8
6	Clinical skills III – medical practice (6 hrs. per day)	128	-	126	2	22	150	5	21
7	Ophthalmology	37	7	28	2	53	90	3	7
		515	75	426	14	535	1050	35	96

The fifth year

Semester IX

NN	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hrs	Total Hrs	Credit	Days
1	Internal medicine	122	-	120	2	178	300	10	30
2	Obstetrics-gynecology	58	-	56	2	92	150	5	14
3	Psychiatry	68	10	56	2	82	150	5	14
4	Pediatrics II	77	15	60	2	103	180	6	15
5	Scientific-research skills I	22	-	20	2	68	90	3	2 hrs per week
6	Medical parasitology	30	-	28	2	60	90	3	7
7	Selective: 1. Endocrinology 2. Vascular surgery	30	-	28	2	60	90	3	7
		407	25	368	14	643	1050	35	87

Semester X

NN	Learning Course	Contact hrs	Lecture	Group work	Exam (Hrs)	Independent Hr	Total Hrs	Credit	Days
1	Surgery III	66	-	64	2	114	180	6	16
2	Critical care with Emergency medicine	58	-	56	2	92	150	5	14
3	Family medicine	77	15	60	2	103	180	6	15
4	Forensic medicine	52	10	40	2	38	90	3	10
5	Tuberculosis	34	-	32	2	56	90	3	8
6	Allergology-clinical immunology	34	-	32	2	56	90	3	8
7	Scientific-research skills II	22	-	20	2	128	150	5	2 hrs per week
8	Selective: 1. Pediatric surgery 2. Urology	30	-	28	2	60	90	3	7
9	Selective: 1. Neurosurgery 2. The bases of plastic surgery	30	-	28	2	60	90	3	7
		403	25	360	18	703	1110	37	85

TMA offers the students the selective learning courses. Before the beginning of the semester during a week a student has the right to choose one of the offered courses desirable for him without any restriction.

Student's evaluation system:

Student is awarded a credit in case of the positive evaluation after the accomplishment of the learning course. The estimation of the knowledge is carried out by 100 point system. During the semester student gets 60 points on the basis of the attendance, activity, quiz, oral or written testing, the preparation of reviews, the presentation, the elaboration of clinical skills or any other components. The quantity of the components and estimation criteria are defined by the supervisor of the learning course and are presented in the syllabus. 40 points are provided for the final exam. The student is allowed to pass the final exam in case if a maximum point of the final exam and the midterm evaluation he/she gets 51 points. The final exam is considered to be passed if a student gets minimum 20 points.

Student is awarded a credit in case of getting 51-100 points. In case of getting 41-50 points a student will re-take the exam. In case of getting 40 points or less a student has to pass the learning course repeatedly.

The evaluation system

Points	Evaluation
91-100 (A)	excellent
81-90 (B)	very good
71-80 (C)	good
61-70 (D)	satisfactory
51-60 (E)	sufficient
41-50 (FX)	unpassed; the student has the right to pass an examination additionally
(F)	failed; the student should pass a learning course repeatedly for the reception of the credit

Study results:

After the accomplishment of the educational program, the graduate:

- has the deep and system-defined knowledge based on the newest researches and evidences of natural, behavioural, social and clinical sciences which the graduate uses in his practical activities; knows basic groups of medicines and the principles of their prescription; has deep knowledge on public health care system and realizes the role of physician in this system, as well as has deep knowledge of ethical and legal principles;

- profound basic education enables the student to manage the process of learning, to receive the newest information, to estimate it critically, to process this information and to use it in his professional activities in the conditions of a fast development of the branch using modern information and communication technologies;
- is able to communicate effectively in oral (with the patient, with members of his family, with disable people, for reception of the informed consent, by means of the person in charge, in case of informing of bad news, during conflicts with colleagues, law enforcement bodies and the media), as well as in written form (the correct keeping of the medical documentation), to participate in discussions and the debates connected with the patient and his/her treatment, to define and state the problem and to search the ways of its decision, to analyse the expected results and to make the final conclusion;
- has the experience of the work in the group both in the status of group leader and the ordinary member, has the ability for practical work in the group and ability for the adaptation to new environment, keeps the principles of professional subordination;
- is able to clearly formulate the goal during the participation in the meetings related with professional subjects, to convey his/her considerations both orally and in the written form, to supervise, to listen, to put a question, to settle conflict situations with agreed and coordinated actions with group members;
- becomes aware of moral and ethical responsibility related to the provision of medical care to a concrete patient, as well as to the whole population; is able to keep ethical principles during the relationships with both colleagues and patients and their relatives; can use International/ Georgian legislation in the process of treatment;
- is able to realize the necessity of constant updating of knowledge during all the period of his professional activities;
- is able to carry out the planned research independently taking into account the legislation and the principles of bioethics connected with the research, to look for the available literature, to make its critical analysis, to process the results obtained, to draw a conclusion, to prepare paperwork, the presentation and participation in the scientific debates;
- is able to define the priorities in the process of his professional work, to plan and distribute working hours singled out for the accomplishment of the problem correctly, has a sense of responsibility for the work performed by him/her, estimates it and makes the critical analysis;
- is able to collect the anamnesis of the disease, to examine the patient objectively, to plan both laboratory and instrumental investigations, to interpret the results of the research, to carry out differential diagnostics regarding other diseases, to diagnose a case and to substantiate it using the principles, skills and knowledge based on evidences; to plan the ways of the treatment having

minimal risk of causing damage, to encourage the patient, to protect his/her rights, to have the ability of the communication with his/her relatives and colleagues, to preserve confidentiality, to review the plan of disease management, to take care of the patient and members of his/her family being in a critical condition; to issue death certificate; to require autopsy in cases of conditions provided by the legislation, to manage chronic diseases;

- is able to reveal and estimate emergency state, to provide the first medical care. According to the guidelines, to carry out life-preserving and cardiac-pulmonary both basic and extended reanimation, treatment of traumas;
- is able to prescribe the medicines clearly and accurately, to have the ability to relate the medicines and other methods of the treatment to clinical context, to discuss the accordance between medicament us and other kinds of the treatment, to evaluate the potential advantage and the risk for the patient, to treat pain and distress, to take into account the compatibility of medicines at the beginning of the treatment;
- is able to estimate the influence revealing the disease and psychological and social factors on the patients, to establish the stress related to the disease and alcohol and drug dependence;
- is able to use information technologies in his professional activities as well as to search the information, to keep and use it, to keep correctly and preserve/store completely medical records, to create portfolio;
- is able to perform the measures for health supporting and to work in health care system effectively – to carry out preventing the spread of infections; has realized his own health problems and can estimate his own health regarding professional duties;
- is able to demonstrate clinical skills independently or under the supervision:

- To measure pressure
- Vein puncture
- The catheterization of peripheral veins and infusion of medical means
- Transfusion of blood
- Subcutaneous, cutaneous and muscular injection
- Oxygen delivery
- Correct transporting of the patient
- Processing of a wound and its suture
- Catheterization of bladder
- To make urine analysis
- Lumbar puncture
- Recording of the electrocardiogram and its interpretation
- Carrying out of functional tests of respiratory system

- Intubation of respiratory ways
- Carrying out of cardio-pulmonary reanimation

Material and human resources necessary for the implementation of educational program:

The process of learning will take place at the Academy where each auditorium equipped with relevant stocks, the library, the computer centre, student centre for clinical and scientific-research skills are located, as well as at the clinical bases with which the Academy has executed the contracts on the collaboration.

Program uses newest USA Medical Textbooks and materials which are aimed to help students to pass USMLE (USA) and other international exams.

The educational process will be performed by the academic staff of TMA and the invited teachers.

The opportunities for the continuation of study:

After the completion of educational program the graduate has the right to continue the study in the doctorate or can take a course of residency in a concrete speciality in Georgia and abroad.

The sphere of employment:

After the completion of educational program, according to the Law of Georgia "On Physician's Work" the graduate is allowed: to work as a physician's assistant (under the supervision of certified doctor), to carry out scientific and pedagogical activities in the theoretical branches of medicine or other spheres of health care which does not mean independent work of a doctor.

To get acquainted with the syllabuses of educational courses provided by the Educational program is available at the Library or on the website of Petre Shotadze Tbilisi Medical Academy – www.tma.edu.ge.

The syllabuses are protected by a code which may be received at the library or the Dean's office after the registration of the student.

To clarify any problem related to the Educational program one can refer to the Dean of Faculty of Medicine.

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