

**Program Title:** Medicine

**Awarded qualification:** Medical Doctor

**Program Director:** Prof. Alexander Tsiskaridze, Prof. Dimitri Kordzaia

**Program Capacity:** 360 ECTS credits

**Language:** English

**The aim of educational program:**

To provide students the Internationally approved standards knowledge and develop the skills convenient of this standards.

The educational program includes to provide students knowledge and skills into the following fields:

- Scientific Basis of Medicine;
- Clinical knowledge and skills;
- Population Health and Health Systems;
- Professional Values, Ethics and Behavior;
- Communication skills;
- Critical thinking and scientific research;
- Information management.

**Program admission:**

**National Exam.**

**Learning Outcome:**

**Knowledge and understanding** - Certified Medical has a natural science, knowledge and practical skills in behavioral, social and clinical sciences in a profound and systematic knowledge; knows the main groups of medications, their prescription according the patients conditions and diseases; has comprehensive knowledge about the public health system and acknowledge the physician's role in this system; has a deep knowledge of ethical and legal principles; acknowledges the complex ways of solving of clinical problems.

**The skills of using the knowledge in practice** – Based on received knowledge is able to evaluate and plan the diagnostic tests of clinical and also emergency cases; measures in the clinical context of relevant drugs and other therapeutic procedures; ability to evaluate the treatment potential benefit and risk for patients; has a competence to perform the knowledge relevant practical procedures; Multidisciplinary team working skills, as well as ordinary members, as well as the leader; is able to formulate the tasks clearly; to agree with team members, to coordinate their activities and adequate evaluation of the group members' ability; to adequately assess the conflict and force majeure situations; use of knowledge and methods in medical practice and research of scientific principles of biomedicine.

**Ability to report** – has a comprehensive clinical reasoning, able to critical analysis of the survey of incomplete and contradictory data, the differential diagnosis, to provide the differentiation diagnosis; able to formation of diagnosis and its justification by the using of evidence-based principles, skills and knowledge.

**Communication skills** - Ability of within the medical context of effective written and verbal communication in the native and foreign languages; has a skills of observation, listening, asking questions, as well as non-verbal communication skills; ability of use the full range of educational-informative resources, management of own learning process; able to manage of the time to organize, the selection of priorities, private policy of deadlines and the agreed working ability. Able to obtain information from various sources, processing, and its critical evaluation; acknowledges the continuous updating of knowledge and the needs of continuous professional development, has ability of objectively evaluate own knowledge and skills.

**Values** - in the context of medicine has knowledge of ethical and legal principles, ability of the patient's rights; in the professional context leading the discussion/conversation and participation conflicts resolution with any person, regardless of its social, cultural, religious or ethnic background. Ability of leading the justice, social and democratic values during the communication with colleagues and patients.

## **Sectoral competences**

### **Knowledge**

1. Basic knowledge of natural sciences;
2. Knowledge of behavioral and social sciences;

3. Knowledge of clinical sciences;
4. Knowledge of medications and principles of their prescription;
5. Knowledge of public health system and understanding of role of physician in this system
6. Knowledge of ethical and legal principles.

### **Sector Skills**

The graduated student is able:

#### **1. Counseling the patient**

- Gathering the anamnesis
- Conduct a physical examination
- Clinical reasoning and decision making
- Giving the definitions and advices
- Encouragement of the patient's rights
- Evaluation of the patient's psychological status

#### **2. An evaluation of clinical cases, planning the diagnostic tests, conduct the differential diagnosis, a discussion about disease management plan**

- Understanding and evaluation of the complexity of clinical presentation
- Planning the relevant examination and interpretation of results
- Discusses the differential diagnosis
- Discusses the disease management with patients and their care givers
- Care for terminally ill patients and their families
- Management of chronic disease

#### **3. Assistance during the emerging situations (first-aid measures and intensive care)**

- Identification and evaluation of emergency medical conditions
- Treatment of emergency medical conditions
- Basic first aid
- Perform the basic life-saving and cardio-pulmonary reanimation measures appropriate guidelines;
- Perform the advanced life-saving measures according the guidelines
- Treated the injuries in accordance with the guidelines.

#### **4. Knowledge of medication prescription rules**

- Accurate and comprehensive prescription of medications
- Connect of clinical context of the medications and other medical measures
- Reviewing of possibilities of medical and other treatment for patients and their potential benefits and risk assessment

- The treatment of pain and distress
- Compatibility measures of the medications for the prescription

### **5. Performing the practical procedures**

- Pressure measurement
- Venesection
- Lumbar puncture
- IV catheter installation
- IV administration of medications and use of infusion devices
- SC and IM injections
- Oxygen supply
- Transportation of patients and related attitudes
- Surgical stitches
- Blood transfusion
- Bladder catheterization
- Perform the urine test
- Electrocardiogram recording and interpretation
- Functional testing of respiratory system

### **6. Effective communication in a medical context**

- Communication with patients
- Communicating with colleagues
- Shearing bad news
- Communication with relatives
- Communication with disabled persons
- Communication to receive Informed consent
- A written communication (including medical records)
- Communication in case of conflict
- Communication with the help of additional person
- Communicate with law enforcement agencies and the media
- Effective communication with any person, regardless of its social, cultural, religious or ethnic background.

### **7. The use of ethical and legal principles in medical practice**

- confidentiality
- Use of skill of analyze and ethical principles during the treatment
- Obtaining the informed consent and documented appropriate

- Issued the death certificate
- Request of autopsies (in the cases prescribed by law)
- Use of Georgian and International law during the treatment
- Performing the medical activities in a multicultural society

### **8. Evaluation of illness-related psychological and social aspects of the patient**

- Evaluation of influence of psychological factors in patients' disease manifestation

- Evaluation of influence of social factors in patients' disease manifestation
- Determination of illness-related stress
- Determination of dependence on the alcohol and medication

### **9. Use of Evidence-based principles, skills and knowledge**

- Use of evidence in practice
- Correct identification of the relevant literature and conduct research
- A critical evaluation of published literature, conclusions and use in practice.

### **10. Effective use of informative technologies in medical context**

- Accurate and full saving of clinical records (possession)
- Use of modern information technology in practice
- Research of specific information resources
- Information saving and later use
- Personal record keeping skills (portfolio)

### **11. Use of knowledge and methods of Biomedical scientific principles in medical practice and research**

- Knowledge of scientific research methodology, research design
- Detailed planning, processing of results and conclusions skills
- The ability to use of biomedical science achievements in practice
- The writing skills of the summary / review based on biomedical scientific literature and critical analysis
- Knowledge of the principles of ethical issues in research.

### **12. Health promotion activities, involvement in public health issues, effective work in health care system**

- Performing the treatment, which minimizes the risk of patient harm
- Measures to prevent the spread of infection
- Understanding of own health problems and self health assessment related on professional responsibilities
- Participation in health care advocacy activities in both individual and population levels.

## General competences

- 1. Analysis and synthesis** – ability of critical assessment of difficult, incomplete and contradictory data their independent analysis, understandable transmission of the results of analysis and then to use them. Has a critical approach to the new information, able to analyze a variety of data, summarize, integrate, conclusions, the results of the analysis and/or ability of evidence counter-arguments.
- 2. Information management** - is able to obtain information from various sources, processing large amounts of information and its critical evaluation. Have the ability to use the collected information in professional activities.
- 3. Problem solving / decision making**- is able to independently identify the complex problems, its formation, and determination of ways of problem solving, analysis of the expected results and make the final decision. Familiar and, when necessary, use additional resources effectively within their own specialty.
- 4. On native language oral and written communication skills**- is able to communicate on their native language freely, to participate in the discussion on a professional level, have ability to participate in dialogue with not medical professionals on understand language, is able to prepare detailed written reports and records.
- 5. Knowledge of another language** - relevant knowledge of one of European language on level B2.
- 6. Information and communication technology capacity skills** – familiar and able to use modern information and communication technologies (ICT) and able to search information by using this skills; is able to use the multimedia and online interactive programs, including the specialized fields; is able to learn independently informative technologies; able to use a computer, office software programs; Able to find sources of information, information storage and communication skills in electronic format.
- 7. Group work**- Ability to work in a team as an ordinary member, as well as the leader. Have skills of clear formulation of objectives, coordinate activities with the group members and adequate evaluation of team members' ability, able to manage conflict and situations of force majeure.
- 8. Communication skills** – have skills of observation, listening, asking questions, as well as have skills of non-verbal communication. Able to participate in the meetings and giving own opinions by oral and written format. Is able to lead the discussion professionally and participation in conflict resolution.
- 9. Ability to observe the ethical principles**- have skills to observe the ethical principles in

communication with colleagues, patients and not medical professionals, is able to analyze and resolve ethical dilemma.

**10. Learning / knowledge continuously update** - have ability to use the full range of educational-information resources, can manage own learning process. Acknowledges the importance of continuous updating of knowledge, have the ability to objectively evaluate personal knowledge and skills.

**11. Ability to adapt to the new environment** - practical working skills with staff, professional subordination / adaptation skills, Ability to learn new technologies.

**12. The ability of a research work-** have skills to participate in research, have skills of critical analysis of scientific research, has a competence in research design, practical use of methodology and scientific knowledge; skills to collect documental materials, literature review around a research subject, the data processing, presentation of results and participation in debates. Familiar with the laws and regulations and with principles bioethics accordingly with research.

**13. Ability (skills) to work independently** – have the skills of time keeping, the selection of priorities, agreed the terms and skills of coordinate work. Is able to carry out resource planning in own practice adequately. Is responsible for performed work and able to evaluate and critique.

### **Methods of achieving learning outcomes:**

The necessary precondition for the education procedure is integration of theoretical and practical training, development of clinical skills at the virtual simulation in the center (for beginners) and in the clinical environment (for students in the clinical training). High priority should be given to new technologies. For assessing the above mentioned knowledge and skills should be used as verbal as well as the test exams, objective structured clinical examination (OSCE), portfolios, presentations, a summary/thesis. In the learning process is very important to use the following forms:

- interactive lectures, seminars, colloquiums
- Teaching in the clinical environment (bedside teaching)
- Use the simulators and mannequins
- Patient and physician role playing
- Laboratory studies
- Presentations
- Participation in scientific research
- Work practices

In the curriculum certain hours belongs to participation in research. The student's It is important that students learn not only to critical evaluation of scientific information, but the research

organization, conducting, analyzing, presenting the results of the basic principles. Students attending and participating in scientific conferences of different departments/faculties.

**Student learning assessment system:**

Students' knowledge is being evaluated according to the following system: "Excellent", "Very good", "Good", "Satisfactory", "Sufficient", "Marginal Fail" and "Fail". A student is evaluated in accordance with the following principle:

Scores	Evaluation	Classification of Evaluation
91%-100%	(A) "Excellent"	Positive
81%-90%	(B) "Very good"	Positive
71%-80%	(C) "Good"	Positive
61%-70%	(D) "Satisfactory"	Positive
51%-60%	(E) "Sufficient"	Positive
41%-50%	(FX) "Marginal Fail" ( Failed with the right to resit an exam)	Negative
0%-40%	(F)"Fail" (Has to retake the course)	Negative

The student's final mark in a specific subject is determined by the number of scores collected by him/her in the respective type of studies (lecture, seminar, practical studies, laboratory exercises) in the course of interim and final (examination) evaluation.

In this point the assessment is carried out in accordance with the assessment system(s) in force at the time of the studies of the graduate.

Overall classification of the qualification (in original language): Medical Doctor's diploma.

Diploma average scores (GPA) is calculated as the sum of the credits in the total value on the assessment of GPA score. The diploma points GPA <3.5, Certified Medical Certificate is issued (as usual), and if the average score of Diploma GPA > = 3.5, Successful Certified Medical Diploma is granted.

**Curriculum:**

(See Annex 1, page 6);



**Information about human resources involved in the implementation of program:**

(See Annex 2, page 415);

**Employment Fields**

- Practical work - a junior doctor (junior doctor to perform an independent medical activity under the supervision and responsibility of health care professional eligible to work independently (certified professional) (the Law on Medical Activity, Article 5));
- Pedagogical and scientific activity (Certified Medical doctor is eligible to continue the education in Doctorate or apply for residency program and after the passing state license examination obtain an independent medical activity);
- Prerequisite to enroll in the doctoral program (Certified Medical degrees as equivalent to Master's degree (Law on Higher Education, 48 - article), to allow completion of doctoral study program);
- Prerequisite to enroll in the residency programs;
- Work in theoretical (basic) medicine;

**MD Curriculum  
2016-2017 Teaching Year**



**I Year      I semester**

Nº	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1	Introduction to Clinical Anatomy 1	2	30	5 - 5	1-0	2-3
2.	Medical Chemistry	6	90	15	2	4
3.	Basics of Medical Biophysics	5	75	15	2	3
4.	Cytology	3	45	15	1	2
5.	Environmental Health	5	75	15	2	3
6.	Health Promotion	2	30	5-10	1-X	1-2
7.	Medical Informatics	2	30	15	-	2
8	Foreign Language 1	5	75	15	-	5
	Total	<b>30</b>	<b>450</b>			

### I Year II semester

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1	Introduction to Clinical Anatomy 2	4	60	10-10	1-0	2-3
2.	Embryology, Basic Hystology	3	45	15	1	2
3.	Human Physiology	4	60	15	1	4
4.	Basics of Biochemistry	4	60	15	2	2
5.	Basic Microbiology	3	45	15	1	2
6.	Genetics	3	45	15	1	2
7.	Bioethics	1	15	15	1	-
8	Research skills 1	3	45	15	1	2
9	Foreign Language 2	5	75	15	-	5
	Total	<b>30</b>	<b>450</b>			

### II Year I semester

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1	Nervous System (Clinical Anatomy, Histology/ Embryology, Physiology, Biochemistry)	15 (5/4/4/2)	225 (75/60/60/30)	10-15/20/20/10	1-0/1/1/1	2-3/2/2/2
2.	Respiratory System (Clinical Anatomy, Histology/ Embryology, Biochemistry, Physiology)	6 (3/1/1/1)	105 (45/15/15/15)	6-9/5/5/5	1-0/1/1/1	2-3/2/2/2
3.	Molecular Biology	3	45	15	1	2
4.	Basic Microbiology	3	45	15	1	2
5.	Behavioral Science	3	45	15	1	2
	Total	<b>30</b>	<b>450</b>			

### II Year II semester

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1	Cardiovascular System (Clinical Anatomy, Histology/ Embryology, Physiology, Biochemistry)	6 (1/1/2/2)	90 (15/15/30/30)	3-2/5/10/10	1-0/1/1/1	2-3/2/2/2
2	Digestive System (Clinical Anatomy, Histology/ Embryology, Physiology, Biochemistry)	9 (3/2/2/2)	135 (45/30/30/30)	6-9/10/10/10	1-0/1/1/1	2-3/2/2/2
3.	Urogenital System (Clinical Anatomy, Histology/ Embryology, Physiology, Biochemistry)	4 (1/1/1/1)	60 (15/15/15/15)	3-2/5/5/5	1-0/1/1/1	2-3/2/2/2
4.	Endocrine System and Skin (Clinical Anatomy, Histology/ Embryology, Physiology, Biochemistry)	6 (1/1/2/2)	105 (60/15/15/15)	15/3/3/3	2/2/2/2	3/3/3/3
5.	Immunology	3	45	15	1	2
6.	Virology	2	30	15	1	1
<b>Total</b>		<b>30</b>	<b>450</b>			

**III Year I semester**

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1.	Pathology (Anatomy)	10	150	37	1	3 (+2)
2.	Pathology (Physiology)	10	150	37	1	3 (+2)
3.	Physical Diagnostics - Propedeutics	10	150	37	1	3 (+2)
<b>Total</b>		<b>30</b>	<b>450</b>			

**III Year II semester**

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours

1.	General Surgery	7	105	26	1	3 (+1)
2.	Roentgenology, Medical Radiology	8	120	30	1	3
3.	Pharmacology	8	120	30	1	3
4.	Research Skills	3	45	15	1	2
5.	Basics of Clinical Reasoning	2	30	1-8	1 (3h)-0	2
6.	Clinical Skills (Basic)	2	30	10	1	2
	<b>Total</b>	<b>30</b>	<b>450</b>			

**IV course I-II semesters**

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1.	Surgery 1 /Clinical Skills 1	7 (4/3)	105	21	1	4
2.	Pediatrics	6	90	18	1	4
3.	Phtisiatry	2	30	6	1	4
4.	Obstetrics	6	90	18	1	4
5.	Urology, Nephrology	7	105	21	1	4
6.	Section Course	1	15	5	-	3
7.	Clinical Communication Skills	1	15	5	-	3
<b>Total</b>		<b>30</b>	<b>450</b>			

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1.	Internal Medicine 1 /Clinical Skills 1	12 (9/3)	180	36	1	4
2.	Neurology	8	120	24	1	4
3.	Medical Psychology	2	30	6	1	4
4.	Traumatology, Orthopedics	4	60	12	1	4
5.	Occupational Medicine	2	30	6	1	4
6.	Elective Course	2	30	6	1	4
<b>Total</b>		<b>30</b>	<b>450</b>			

V course I-II semesters

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1.	Surgery 2/ Clinical Skills 2	7 (4/3)	105	21	1	4
2.	Internal Medicine 2/ Clinical Skills 2	7 (4/3)	105	21	1	4
3.	Dermato-Venereology	5	75	15	1	4
4.	Epidemiology /Research Skills	4	60	12	1	4
5.	Hematology, Transfusiology	4	60	12	1	4
6.	Laboratory Medicine	1	15	5	—	3
7.	Rehabilitation and Physiotherapy	2	30	6	1	4
<b>Total</b>		<b>30</b>	<b>450</b>			

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1.	Family Medicine	5	75	15	1	4
2.	Gynecology	5	75	15	1	4
3.	Infectious Diseases	9	135	27	1	4
4.	Allergology and Clinical Immunology	3	45	9	1	4
5.	Endocrinology	3	45	9	1	4
6.	Oncology	3	45	9	1	4
7.	Elective Course	2	30	6	1	4
<b>Total</b>		<b>30</b>	<b>450</b>			

## VI course I-II semesters

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1.	Surgery 3	3	45	9	1	4
2.	Clinical Pharmacology	4	60	12	1	4
3.	Anesthesiology, Intensive Care	4	60	12	1	4
4.	Psychiatry	4	60	10	1	5
5.	Public Health	4	60	12	1	4
6.	Palliative Care	1	15	5	-	3
7.	Clinical Skills 3	5	75	15	1	4
8.	Head and Neck Surgery	2	30	6	1	4
9.	Endoscopy	3	45	9	1	4
<b>Total</b>		<b>30</b>	<b>450</b>			

№	Subjects	ECTS Credits	Contact	Duration	Lecture	Seminar
			Hours	Days	Hours	Hours
1.	Clinical Toxicology	2	30	6	1	4
2.	Emergency Medicine	4	60	12	1	4
3.	Reproductology	3	45	9	1	4
4.	Pediatric Surgery	3	45	9	1	4
5.	Oto-Rhyno-Laryngology	3	45	9	1	4
6.	Ophthalmology	3	45	9	1	4
7.	Neurosurgery	2	30	6	1	4
8.	Forensic Medicine	3	45	9	1	4
9.	Geriatrics	2	30	6	1	4
10.	Research Skills 3	3	45	9	1	4
11.	Elective Course	2	30	6	1	4
<b>Total</b>		<b>30</b>	<b>450</b>			