



East-West University

Educational Program – Medicine

Introduction

This document outlines the One-Cycle Educational Program of Medicine for the Medical Doctor degree at the School of Medicine, East-West University. The program has been meticulously developed by a dedicated team comprising selected representatives from the academic staff, administrative staff, and key stakeholders, including healthcare professionals, industry experts, and community representatives, to ensure its relevance and alignment with current medical and societal needs. Its content and structure are aligned with the Sectoral Benchmark Statement of Higher Education in Medicine and are in full accordance with the University's mission and strategic development plan. In the formulation of this program, the findings and recommendations of the relevant Working Group were carefully considered. The program is the product of a collective effort, informed judgment, and thorough discussion by all team members, drawing on extensive experience in medical education and incorporating contemporary international practices.

Program Overview

The Medical Doctor Educational Program offers a one-cycle integrated medical education, culminating in the award of the academic degree of Medical Doctor (MD) upon successful completion. The language of instruction for the program is English. Admission to the program is conducted in accordance with the established procedures for the recognition, suspension, and termination of student status within a one-cycle higher educational program, including provisions for mobility, as well as the recognition of prior education obtained during the course of study.

To be eligible for graduation, each student must complete a minimum of 5500 contact hours of medical training, in accordance with the European Directive 2005/36/EC of the European Parliament and of the European Council, dated 7 September 2005, regarding the recognition of professional qualifications.

School	School of Medicine
educational program	Medicine
Qualification	Medical Doctor (MD) (0912)
Level of higher education	Degree equal to a master`s degree
Language	English Language
Head of the program	Prof. Kh.Saganelidze, MD, PhD
Program approval date	19.09.2019 Act N1;
Program update date	<ul style="list-style-type: none"> • 19.09.2021 Act N6; • 20.05.2022 Act N8; • 03.08.2023 Act N11;
Program Duration and Credit Structure	<p>The MD program is designed in an integrated format, combining basic medical sciences, clinical disciplines, and practical skills into a cohesive learning experience. This approach ensures that students develop a comprehensive understanding of medical concepts by connecting theoretical knowledge with clinical application, fostering critical thinking, and enhancing their ability to approach patient care holistically. The program spans six years and comprises a total of 360 ECTS credits.</p> <p>Credit Allocation in the MD Program</p> <p>The MD Program is designed with a well-structured credit distribution across key curriculum components to ensure a comprehensive and balanced medical education:</p> <ol style="list-style-type: none"> 1. Specialty Courses and Modules: <ul style="list-style-type: none"> ○ Core Courses: 290 ECTS ○ Elective Courses: 30 ECTS ○ Scientific Research: 12 ECTS, fostering essential research and analytical skills. ○ Clinical Skills Training: 14 ECTS, providing students with practical experience critical for effective medical practice. <p>Total for Specialty Courses and Modules: 346 ECTS</p> 2. Georgian Language Courses: Allocated 14 ECTS to develop linguistic proficiency essential for effective communication with patients in healthcare settings. <p>The academic year consists of 40 working weeks, divided into two semesters: the Fall semester and the Spring semester, each spanning 20 weeks and separated by holiday breaks. Each 20-week semester allows students to earn 30 ECTS credits, which are allocated across various</p>

	<p>modules and courses, resulting in an annual accumulation of 60 credits. According to the individual curriculum of a student, the annual study load of a student can be determined by more than 60 credits, while the total number of credits added above 60 within the duration determined by the subject benchmarks of the MD Program should not exceed 15 credits. One ECTS credit corresponds to 30 hours of study.</p>
<p>Program Prerequisites</p>	<p>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. Likewise, the status of University student can be obtained through mobility. The prerequisites for the admission of an entrant to the educational programme of a qualified medical doctor without Unified National Exams are the following in accordance with the rules and timeframes established by the legislation:</p> <ul style="list-style-type: none"> • for a foreign citizen - an internationally recognized certificate confirming at least B1 level of English (IELTS, TOEFL, Cambridge English, UNICert[®], EnglishScore, etc.) or • a relevant document (e.g.: diploma, certificate, etc.) confirming that an entrant with the foreign citizenship received education in English, and also for a citizen of Georgia who has received full general education or its equivalent education in a foreign country in English and who has studied in a foreign country in the last 2 years of full general education and presents a relevant document (e.g. diploma, certificate, etc.). or • a confirmation of the abovementioned level of knowledge by the higher educational institution as a result of an exam (including listening, comprehension and analysis of the read text, speaking) organized by the institution itself to determine the level of English language proficiency of a foreign citizen. <p>Verification of the fulfillment and observance of the above admission prerequisites is carried out by the Center in accordance with the procedures established by the law, within the framework of authorization of higher education institutions and/or accreditation of higher education programs.</p>
<p>Program Objectives:</p>	<p>The primary goal of the MD program is to develop highly skilled and competent medical professionals prepared to meet the standards of excellence in the global healthcare landscape, aiming to:</p> <p>Objective 1: Equip graduates with a strong foundation in basic medical and clinical sciences, along with the practical and clinical skills necessary for effective medical practice, including health promotion and disease prevention.</p> <p>Objective 2: Instill norms of professionalism, ethical responsibility, cultural competency, and patient-centered care to ensure integrity, compassion, and equity in healthcare delivery.</p> <p>Objective 3: Develop the ability to navigate standard and complex medical situations through critical thinking, problem-solving, and evidence-based decision-making, while leveraging emerging technologies and adapting to advancements in medicine.</p> <p>Objective 4: Foster exceptional communication skills and the ability to work collaboratively within multidisciplinary teams to enhance the quality and coordination of patient care.</p>

	<p>Objective 5: Cultivate a commitment to lifelong professional development, resilience, and well-being, while preparing graduates to assume leadership roles in healthcare, education, and public health.</p>
<p>Learning Outcomes</p>	<p>Upon successful completion of the program, the graduate will acquire essential general transferable skills and experience.</p> <p>Medical Field Specific Learning Outcomes is developed according to "Sectoral Benchmark Statement of Higher Education in Medicine" and WFME guidelines.</p> <ol style="list-style-type: none"> 1. The graduate knows / understands the fundamental principles of biomedical, behavioral, social, clinical sciences and fields: <ul style="list-style-type: none"> • Outcomes are achieved by studying biomedical sciences (biochemistry, human anatomy, histology, embryology and cytology, medical physiology, molecular biology, medical microbiology, pathology, genetics, immunology), clinical sciences (clinical diagnostics, clinical skills, internal diseases, etc.). Gerontology, Medical Pharmacology, clinical Pharmacology, behaviorism, public health and epidemiology, preventive medicine, neurology, psychiatry, bioethics, legal aspects of medical activity, etc. • Methods of achieving results: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees. • Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam, direct observation report, portfolio, logbook. 2. A graduate of the program consults the patient on: <ul style="list-style-type: none"> • Outcomes are achieved by studying clinical sciences: (clinical diagnosis, clinical skills, physical diagnosis, Clinical Sciences), Gerontology, Behavioral, neurology, psychiatry, bioethics, medical activities, legal aspects, surgery, radiology, rheumatology, neonatology, traumatology and orthopedics, obstetrics, pulmonology, cardiology, pediatrics, children's surgery, gastroenterologist, endocrinology, hematology, oncology, infectious diseases, nephrology, urology, gynecology, ophthalmology, otorhinolaryngology, Allergology, dermatology and STD, and so forth. • Methods of achieving results: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees; • Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam, direct observation report, portfolio, log book. 3. A graduate of the program assess clinical cases, prescribes examinations, conducts differentiated

diagnosis and discusses disease management plan.

- Outcomes are achieved by studying clinical sciences: (clinical diagnosis, clinical skills, physical diagnosis, Clinical Sciences), Gerontology, Behavioral, neurology, psychiatry, bioethics, medical activities, legal aspects, surgery, radiology, rheumatology, neonatology, traumatology and orthopedics, obstetrics, pulmonology, cardiology, pediatrics, children's surgery, gastroenterologist, endocrinology, hematology, oncology, infectious diseases, nephrology, urology, gynecology, ophthalmology, otorhinolaryngology, Allergology, dermatology and venereology, and so forth.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees;
- Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam, direct observation report, portfolio, log book.

4. A graduate of the program conducts basic and advanced life support:

- Outcomes are achieved by studying clinical sciences: (Clinical Diagnostics, Physical Diagnosis, Clinical Sciences), Surgery, Traumatology & Orthopedics, Neonatology, Pulmonology, Cardiology, Pediatrics, Gastroenterology, Infectious Diseases, Nephrology, Urology, Obstetrics & Gynecology, Ophthalmology.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees;
- problem analysis, objectively structured clinical exam, direct observation report, portfolio, log book.

5. A graduate of the program prescribes the medicine:

- Outcomes are achieved by studying biochemical sciences (Biochemistry, Medical Physiology, Molecular Biology, Medical Microbiology, Pathology, Genetics, Immunology), Clinical Sciences (Clinical Diagnostics, Clinical Skills, Physical Diagnosis, etc.), Medical Pharmacology, Legal aspects of medical practice.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees.
- Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam.

6. A graduate of the program conducts practical procedure:

- Outcomes are achieved by studying clinical sciences (Clinical Diagnostics, Physical

Diagnosis, Clinical Sciences, Clinical Skills).

- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees.
- Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam. Report of the direct observation, portfolio, logbooks.

7. A graduate of the program conducts effective communication in medical context.

- Outcomes are achieved by studying clinical sciences (Clinical Diagnostics, Clinical Skills, Physical Diagnosis, etc.), Behavioral Sciences, Neurology, Surgery, Radiology, Rheumatology, Traumatology and Orthopedics, Neonatology, Obstetrics, Pulmonology, Cardiology, Cardiology, Cardiology, Cardiology, Cardiology, Cardiology, Infectious disease Sisters, Nephrology, Urology, Gynecology, Ophthalmology, Otolaryngology, Allergology, Dermatology and venereology, Bioethics, Legal Aspects of Medical practice.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees.
- Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam.

8. A graduate of the program applies ethical and legal principle in medical practice:

- Outcomes are achieved by studying Behavioral Sciences, Neurology, Surgery, Psychiatry, Neonatology, Obstetrics, Cardiology, etc.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees; problem analysis, objectively structured clinical exam.

9. A graduate of the program evaluates patient-related psychological and social aspects:

- Outcomes are achieved by studying Behavioral Sciences, Neurology, Surgery, Psychiatry, Neonatology, Obstetrics, Cardiology, Pediatrics, Bioethics, Public Health and Epidemiology, Preventive Medicine, Legal Aspects of Medical practice.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees.
- Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam.

10. A graduate of the program applies evidence-based principles, skills and knowledge.

- Outcomes are achieved by studying Clinical Sciences (Clinical Diagnostics, Clinical Skills, Physical Diagnosis, etc.), Behavioral Sciences, Neurology, Surgery, Radiology, Rheumatology, Traumatology and Orthopedics, Neonatology, Obstetrics, Pulmonology, Pediatrics, Cardiology, cardio surgery, pediatric, pediatric surgery, gastro enter ology, endocrinology, Hematology, Oncology, Infectious Diseases, Nephrology, Urology, Gynecology, Ophthalmology, Otolaryngology, Allergology, Dermatology and venereology, Bioethics, Academic Writing, Basics of Scientific Research, Biostatistics, working on a Scientific research.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees.
- Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam.

11. A graduate of the program effectively applies information and information technologies in a medical context.

- Outcomes are achieved by studying Clinical Sciences (Clinical Diagnostics, Clinical Skills, Physical Diagnosis , etc.), Behavioral Sciences, Neurology, Surgery, Radiology, Rheumatology, Traumatology and Orthopedics, Neonatology, Obstetrics, Pulmonology, Pediatrics, Cardiology, pediatric, pediatric surgery, gastroenterology, endocrinology, Hematology, Oncology, Nephrology, Urology, Gynecology, Ophthalmology, Otolaryngology, Allergology, Dermatology and STD, Bioethics, Academic Writing, Basics of Scientific Research, Biostatistics;
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees.
- Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam.

12. A graduate of the program applies biomedical scientific principles in medical practice and research.

- Outcomes are achieved by studying biomedical sciences (Biochemistry, Human Anatomy, Histology, Embryology & Cytology, Medical Physiology, Molecular Biology, Medical Microbiology, Pathology, Genetics, Immunology), Clinical Sciences (Clinical Diagnostics, Clinical Skills, Internal Disease Prediction, etc.), Medical Pharmacology, Bioethics, Academic working on the scientific research etc.
- Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues,

	<p>patients and patients' relatives / trustees.</p> <ul style="list-style-type: none"> • Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam. <p>13. Graduate engages in health promotion activities, engage in public health issues, and work effectively in the healthcare system:</p> <ul style="list-style-type: none"> • Outcomes are achieved by studying Behavioral Sciences, Bioethics, Public Health and Epidemiology, Preventive Medicine, Legal Aspects of Medical Practice, Rehabilitation and Physical Therapy, Academic Writing, Basics of Scientific Research, Biostatistics, working on the scientific research. • Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case and problem analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives / trustees. • Assessment methods: tests, open-ended questions (oral or written), clinical case and problem analysis, objectively structured clinical exam, direct observation reports portfolio, logbooks. <p>14. A graduate of the program has become professional:</p> <ul style="list-style-type: none"> • A graduate Is impartial and observes to ethical standards; Can provide quality medical care; Is creative, initiative, critical and self-critical; Has the ability to make decisions and be a leader; Is compassionate and has communication skills; Is able to identify their own skills and ask for the assistance; Is able to work individually and in groups and adapt to new environments; Is well aware of the standard situation and can find solution to nonstandard ones; Is able to analyze and synthesize situations and problems; Has learning ability and needs to learn, teaching and research skills; Can apply knowledge and skills into practice; Understands diversity and the importance of working in a multicultural environment; Provides international context and has a general knowledge. • Outcomes are achieved by complete and successful mastering of the program. • Methods of achieving outcomes: Lecture, seminar / practice, clinical practice, clinical case analysis, discussion / debate, role playing, communicating with colleagues, patients and patients' relatives. • Assessment methods: tests, open-ended questions (oral or written), clinical cases, direct observations, presentations, logbook and others.
<p>Program Content, Description, and Organization</p>	<p>The program's integrated structure, consisting of modules and courses, is designed to study the human body as a living organism, examining its structure, function, and development at various levels of organization, including the molecular, organ system, and individual levels. The program also emphasizes the understanding of changes associated with diseases, injuries, gerontology, genetics, developmental disorders, and their treatment, as well as the internal and external factors influencing outcomes. At the foundational instructional stage, basic medical and clinical sciences are integrated into what are referred to as general (introductory) and special modules. The general module provides essential</p>

foundational knowledge, establishing a connection with medical disciplines and fostering a general understanding, while also serving as a prerequisite for the integrated comprehension of the content in the special modules.

The structure of the special modules is designed to focus on critical issues in medical sciences that are fundamental to medical practice, healthcare, and the prevention of diseases, injuries, and disabilities. These special modules cover various human body systems, with each module encompassing more than one system. The curriculum is structured in a spiral manner, revisiting and expanding upon knowledge and skills across vertical modules multiple times to reinforce learning.

Overall, this stage of the Medical Doctor (MD) educational program is designed to (i) facilitate the integration of basic and clinical sciences within a clinical problem-solving, which is crucial for (ii) the clinical training and practical phase, and (iii) for the ongoing professional development of the students.

The modules within the curriculum are organized around six critical areas:

1. Structure of Life
2. Control of Life
3. Cycle of Life
4. Preservation of Life
5. Protection of Life
6. Support of Life

In addition, the program provides gradual acquisition of valuable knowledge and practice for clinical practice in prominent sectors of medical services.

- Treatment of patients with acute illnesses at the scene and in the department of emergency.
- Treatment of internal diseases.
- Treatment of surgical patients.
- Working in healthcare system.
- Geriatric treatment.
- Pediatric treatment.
- Treatment of psychiatric patients.
- Treatment of gynecological diseases, management of physiological delivery.
- Treatment of critical condition in the intensive care unit.
- Treatment of different diseases (cardiology, nephrology, pulmonology etc.)
- Anesthesiology.
- Rehabilitation and Sport medicine;
- Treatment of different surgical conditions (urology, traumatology, neurosurgery, vascular surgery, etc.)

Structure of Life

This field focuses on:

- Understanding the **musculoskeletal system** at both micro and macro levels.
- Examining the causes and consequences of common injuries.
- Comprehending the principles behind the causes, pathogenesis, clinical manifestations, diagnosis, and management (both surgical and therapeutic) of soft tissue and musculoskeletal system pathologies.

The study of this field is organized into two modules, each encompassing the following courses:

Structure of Life I: Human Anatomy, Histology, Embryology and Cytology, Medical Physiology, Pathology.

Structure of Life II: Rheumatology, Traumatology, and Orthopedics.

Control of Life

This field focuses on studying the **central and peripheral nervous systems** as a unified functional system and aims to provide a scientifically grounded understanding of nervous system disorders.

The field encompasses:

- The structure of the nervous system at both micro and macro levels.
- The fundamentals of normal nervous system function, including a comprehensive exploration of cellular-neurobiological processes and their implications for neurobiological and behavioral functions.
- The basics of pathology, diagnosis, and treatment of nervous system disorders.
- An in-depth understanding of mental processes, mental disorders, their classification, and diagnostic criteria.
- Fundamental principles of etiology, pathogenesis, diagnosis, and management of neurological and psychiatric diseases and conditions.
- Methods for understanding the etiology, clinical manifestations, examination, and diagnosis of common pathologies in certain clinical specialties such as otorhinolaryngology and ophthalmology.
- Principles of disease management and the development of relevant clinical skills.

The study of this field is divided into four modules, organized as follows:

Control of Life I: Human Anatomy, Histology, Embryology, and Cytology, Physiology, Biochemistry

Control of Life II: Behavioral Science, Pathology, Physical Diagnosis and Medical Pharmacology.

Control of Life III: Neurology and Psychiatry.

Control of Life IV: Ophthalmology and Otorhinolaryngology

Cycle of Life

The field examines the molecular, genetic, and chromosomal basis of a healthy organism and disease. The field studies/serves:

- In infancy it covers the neonatal period and differences in the manifestation and management of disease
- Examines women's health throughout the life cycle of a woman, including pregnancy, physical, mental, epidemiological aspects for maintaining health.
- It also covers the mechanisms of obstetric and gynecological disorders, clinical manifestations of disease, research and management.
- Differences in the manifestation and management of disease in childhood.
- Also, the causes, pathogenesis, principles of clinical manifestation, diagnosis and management of surgical and therapeutic pathologies in children.
- Understanding the etiology, clinical manifestation, examination and diagnosis of common reproductive pathologies (surgical, therapeutic patient), principles of disease management and development of appropriate clinical skills.
- Normal functioning, promotion of health, frequent disorders, disease, progression and management during geriatric age.
- Also helps the student to understand the peculiarities of the relationship with the elderly people and their caregivers; introduces their home care services and services available to this population.

Field is planned within 5 modules. Courses in modules are as follows:

Cycle of Life I: Reproduction and Growth - Histology, Embryology and Cytology, Genetics.

Cycle of Life II: Reproductive System - Human Anatomy, Histology, Embryology and Cytology, Medical Physiology, Pathology, Medical Microbiology, Physical Diagnosis

Cycle of Life III: Obstetrics, Gynecology, Male Reproductive System Surgery.

Cycle of Life IV: Neonatology Pediatrics, Pediatric Surgery.

Cycle of Life V: Gerontology

Preservation of Life

The field examines the structure and function, norms and disorders of the **Urinary, Gastrointestinal and Endocrine systems**.

The field studies/serves:

- Scientific basis of clinical practice of Gastrointestinal System, its structure and function, norms and disorders and is aimed at understanding the mechanisms, clinical manifestations and management of common disorders of this organ system.
- Scientific basis of clinical practice of the Urinary System, its structure and function, norms and disorders and is intended to understand the mechanisms, clinical manifestations and management of the common disorders of this organ system.
- The scientific basis of clinical practice of Endocrine System, its structure and function, norms and disorder, with the aim of understanding the mechanisms, clinical manifestations and management of common disorders of this organ system.
- Understanding the principles, causes, pathogenesis, clinical manifestation, diagnosis and management of gastrointestinal (surgical and therapeutic) pathologies.

- Understand the principles, causes, pathogenesis, clinical manifestation, diagnosis and management of (surgical and therapeutic) pathologies of the Endocrine System.
- Understanding the etiology, clinical manifestation, examination and diagnosis of the common pathologies of the Urinary System (surgical, therapeutic patient), as well as understanding the principles of disease management and developing relevant clinical skills.

The field is supposed to be conducted within 5 modules, courses in modules are as follows:

Preservation of Life I: Gastrointestinal & Endocrine Systems - Human Anatomy, Histology, Embryology and Cytology, Medical Biochemistry, Physiology, Pathology, Medical Microbiology, Medical Pharmacology, Physical Diagnosis.

Preservation of Life II: Urinary System - Human Anatomy, Histology, Embryology and Cytology, Medical Physiology, Pathology, Physical Diagnosis.

Preservation of Life III: Gastroenterology, Abdominal Surgery.

Preservation of Life IV: Endocrinology, Endocrine Surgery.

Preservation of Life V: Nephrology, Urology

Protection of Life

The field examines the normal mechanisms of protection of the human body against environmental and biological agents.

The field studies/serves:

- Normal mechanisms of protection of the human body against the environment and biological, chemical and radioactive agents, mechanisms of disease when such protection is absent and / or insufficient and causes damage to the individual;
- Covering basic issues of immunology: concepts, components of immune response and their role in immunopathology; It also examines the mechanisms and clinic pathological correlates of immunology, immunopathology, normal and abnormal growth and differentiation.
- Examines the cellular and molecular characteristics of blood components and helps to understand the function of blood transportation.
- Understanding the etiology, clinical manifestation, examination and diagnosis of specific clinical specialties (Oncology, Hematology, Infectious Diseases), the principles of disease management, and developing appropriate clinical skills.
- Understanding the etiology, clinical manifestation, examination and diagnosis of specific clinical specialties (allergology and clinical immunology, dermatology and venereology), understanding of the principles of disease management, clinical pharmacology, and developing relevant clinical skills.

The field is supposed to be delivered within 4 modules, courses in modules are as follows:

Protection of Life I: Immunology, Immunopathology

Protection of Life II: Blood and Immune System - Histology, Embryology and Cytology, Medical Physiology, Medical Biochemistry, Pathology, Medical Pharmacology.

Protection of Life III: Hematology, Oncology, Allergology and clinical immunology, Clinical pharmacology.

Protection of Life IV: Dermatology and STD

Support of Life

The field examines the norms and disorders of cardiovascular / respiratory function. The directions studies/serves:

- To provide a scientifically substantiated basis for the study of respiratory diseases through the integration of basic/preclinical disciplines (anatomy, histology, physiology, pathology, pharmacology, physical diagnosis) with relevant clinical contexts.
- To provide scientifically substantiated basis for the study of diseases of the cardiovascular system through the integration of basic/preclinical disciplines (anatomy, histology, physiology, pathology, pharmacology, physical diagnosis) and relevant clinical contexts.
- Understand the principles, causes, pathogenesis, clinical manifestation, diagnosis and management of respiratory system pathologies (surgical and therapeutic pathologies);
- Understand the principles of the causes, pathogenesis, clinical manifestation, diagnosis and management of cardiovascular system pathologies (surgical and therapeutic pathologies).

Field study is planned within 2 modules, courses in modules are as follows:

Support of Life I: Cardiovascular & Respiratory Systems: Human Anatomy, Histology, Embryology and Cytology, Medical Physiology, Pathology, Medical Pharmacology, Physical Diagnosis.

Support of Life II: Cardiology, Pulmonology

Aligned with the Sectoral Benchmark Statement of Higher Education in Medicine, the MD program incorporates a well-structured credit allocation across essential curriculum components, including:

- **Scientific Competencies:** Allocated 12 ECTS to cultivate research and analytical skills essential for medical education.
- **Georgian Language:** Comprising 14 ECTS, this component enhances linguistic proficiency in healthcare-specific contexts.
- **Clinical Skills:** Assigned 14 ECTS, providing students with hands-on practical experience crucial for effective medical practice.

The curriculum pays special attention to the topical issues of the healthcare:

	<ul style="list-style-type: none"> • Public Health: A dedicated public health-oriented course within the curriculum, comprising 10 ECTS. • Gerontology: Included as a mandatory course within the program to address the aging population's healthcare needs. <p>The curriculum places special emphasis on addressing the critical healthcare challenges related to cardiovascular diseases (including arterial hypertension and its complications), infectious diseases, and oncological conditions, while also offering elective courses that focus on the most prevalent pathologies specific to various countries, ensuring a comprehensive and globally relevant medical education.</p> <p>Furthermore, elective courses are introduced in the different semesters, offering students the opportunity to expand their academic and professional competencies in specialized areas of study.</p>
Teaching and learning strategies	<p>The strategy of teaching and learning is based on the following principles:</p> <ul style="list-style-type: none"> • Student-oriented/centered: Implies more emphasis on learning than instruction in the process of curriculum planning, delivering and evaluation. • Oriented on self-instruction: Implies that a teacher composes tasks but the student is responsible for its performance/achievement. Responsibility for learning should be divided between the teacher and the student and the student is considered an active participant. • Stimulated: The teacher is a stimulator of the learning and not just a lecturer, it implies that she delivers necessary information for thinking and understanding what should be learnt and not just for accumulating information. • Integrative: The task is that what the students learn should have clinical relevance and learning process should be interesting and relevant. Students should also understand why they learn different courses, what is a clinical significance or/and what are the benefits of the studying. They are supposed to evaluate the information critically and do not remember information just for the exam. • Application of the spiral curriculum: The programme is based on spiral curriculum and every next stage serves to expand theoretical and practical knowledge, including strengthening the integration of clinical and basic sciences.
Teaching and Learning Methods	<ul style="list-style-type: none"> • 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 course 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. During teaching, the focus is made on learning by doing principles. Work in the working group may also be carried out by various methods, including basic

methods and forms below.

- **Seminar:** Students are able to enhance the lectures they hear. By leading the workshop, a student or group of students finds and processes additional information, prepares the presentation, writes an essay, and more. During the seminar, reports are presented, discussions are held, and conclusions are made. The leading teacher of the seminar coordinates these processes.
- **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, Case Based Learning and Case-Based Clinical Reasoning (PBL, CBL, CBCR):** 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 it in the future (patient bed-side). 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, applying this method to students encourages more deeply to 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 courses in clinical courses, 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. Working on them allows students to integrate 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, PBL and CBCR 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, CBL and CBCR sessions, students work in small groups (the number of students in groups in different courses 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 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 course of several consecutive meetings: at the first meeting, the problem is posed by the tutor/facilitator, 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.

- **TBL - Team Based Learning:** Students are provided with lecture material in advance. During the lecture, students are divided into small groups (5-6 students per group), and their knowledge is assessed (both in groups and individually) through pre- and post-tests. There are various modifications of TBL that are used in all stages of teaching.
- **Competence based teaching:** The students are provided with necessary trainings about medical procedures; besides, they are 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 are assisted and stimulated to study independently; they 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 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 manikins 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. In detail all these are written in the relevant course syllabus.

Formative assessments are used to make sure the University Administration, academic staff and students are 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. Students in the specified module are evaluated according to the activity and performed tasks of the module, which is indicated in each syllabus according to learning outcomes. The positive assessment in all modules is the basis for admission to the student in the next semester.

The final exam carries a total of 40 points. To qualify for participation in the final exam, students must accumulate a minimum of 11 points through the formative assessment process. This threshold is a

prerequisite for admission to the final exam, ensuring that students have met the necessary foundational requirements (which is indicated in syllabuses). Once admitted to the final exam, students must successfully achieve at least 50% of the available points of final exam to be considered as having passed. Course assessment system provides:

five types of positive assessment:

- A - Excellent – 91-100 % of maximum points
- B -Very good - 81- 90 % of maximum points
- C - Good - 71 – 80 % of maximum points
- D - Satisfactory - 61 – 70 % of maximum points
- E - Enough - 51 – 60 % of maximum points

two types of negative assessment:

- (FX)- Not passed - 41-50 % of maximum points, (a student is entitled to take the additional examination once);
- (F)- Fail- not more than 40% of the maximum points (A student has to study the discipline once more).

The above specified evaluations are received as a result of adding up interim evaluations and final exam results.

The student is entitled to take retake examinations in the same term. Retake examination should be appointed not less than 5 days from the announcement of the final exam results.

Assessment methods

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

- Multiple Choice Questions (MCQs) –where the student chooses possible answer on shortly formulated questions or statements;
- Open-ended 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;
- Objectively Structured Clinical Examinations (OSCE and mini-OSCE): standardized, practical assessments designed to evaluate clinical skills, decision-making, and communication in a controlled, station-based format.
- OSPE (Objective Structured Practical Examination) - used at the stage of teaching basic disciplines;
- (DOPS) Direct Observation of Procedural Skills - direct observation of procedural skills
- (Mini-CEX) Mini Clinical Evaluation Exercise - mini-clinical evaluation exercise
- (CBD) Case Based Discussion - case-based discussion
- Portfolio/Log-book serves as a structured record-keeping tool for students to document their clinical experiences, practical skills, reflections, and achievements throughout their

	<p>medical education.</p> <ul style="list-style-type: none"> • Presentations, allowing students to develop and demonstrate their ability to effectively communicate complex medical concepts, case analyses, and research findings to peers, educators, and other stakeholders in both academic and clinical settings.
<p>Field of employment</p>	<p>Possibility of independent medical practice for the graduates – Medical Doctors – is regulated by employer's country legislation.</p> <p>Employment Opportunities in Georgia:</p> <ul style="list-style-type: none"> • A graduate of a one-level medical education programme may be employed as a junior physician, who shall perform the duties of a doctor according to the instructions and under the responsibility of an independent medical practitioner (Article 5, Law of Georgia on Medical Practice). • A graduate of the educational programme has the right to: a) to take a medical residency course and after passing the Unified State Certification Exam, receive the right to independent medical practice (Law of Georgia "On Medical Activities", Art. 17) and/or b) to continue studying for a doctoral level, engage in pedagogical and/or scientific activities. • a citizen of Georgia or a foreigner or a stateless person who has graduated from a higher medical school with state accreditation of Georgia and has received a state certificate certifying the right to independent medical activity has the right to independent medical practice (Law of Georgia on Medical Practice, Article 7)
<p>The opportunity to continue studies</p>	<p>Residency Programs:</p> <ul style="list-style-type: none"> • MD graduates typically enter residency training to specialize in a specific field of medicine (e.g., Internal Medicine, Surgery, Pediatrics, Dermatology etc). • MD graduates interested in academic medicine, research, or teaching can enroll in PhD programs focusing on biomedical sciences, clinical research, education science or public health.

Annexes of the program

Semester Distribution

First Semester

№	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0101	Introduction to Medical Science I (Biophysics, Histology embryology and cytology, Medical Biochemistry, Cell Biology)	9
2	MD 0201	Structure of Life I (Musculoskeletal System: Human anatomy, medical physiology, Histology, Embryology and cytology, Pathology)	10
3	MD 1001	Fundamentals of clinical diagnostics and skills	3
4	MD 0801.1/0801.2	Georgian Language and Communication I/Foreign Language I	4
5	MD 0901	Medical English and Communications I	4
Total:			30

Second Semester

№	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0102	Introduction to Medical Science II (Molecular Biology, Genetics, Biochemistry, General Pathology)	9
2	MD 0301	Protection of Life I (Immunology & Immunopathology)	7
3	MD 0401	Control of Life I (Nervous System: Human Anatomy, Histology, Embryology and cytology, Physiology, Biochemistry)	8
4	MD 1101	Bioethics	2
5	MD 0802.1/0802.2	Georgian Language and Communication II/Foreign Language II	2
6	MD 0902	Medical English and communications II	2
Total:			30

Third Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0402	Control of Life II (Nervous System: Medical physiology, Behavioral Science, Pathology, Medical Pharmacology)	1 2
2	MD 0501	Cycle of Life I (Reproduction & Growth: Histology, embryology and cytology, Genetics)	9
3	MD1002	Clinical skills I	3
4	MD 1301	Academic writing	2
5	MD 0803.1/0803.2	Georgian Language and Communication III/Foreign Language III	4
Total:			30

Fourth Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0302	Protection of Life II (Blood and Immune System: Medical microbiology and virology, Medical Biochemistry, Histology, Embryology and Cytology, Medical physiology, Pathology, medical pharmacology)	7
2	MD 0601	Support of Life I (Cardiovascular & Respiratory Systems: Human anatomy, Histology, Embryology and Cytology, Medical Physiology, Pathology, Medical Pharmacology, Physical Diagnosis)	15
3	MD 0804.1/0804.2	Georgian Language and communication IV/Foreign Language IV	4
4		Elective	4
Total:			30

Fifth Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0701	Preservation of Life I (Gastrointestinal and Endocrine Systems: Human anatomy, Histology, Embryology and Cytology, Medical Biochemistry, Medical Physiology, Pathology, Medical Microbiology, Medical Pharmacology, Physical Diagnosis)	15
2	MD 0502	Cycle of Life II (Reproductive System: Human anatomy, Histology embryology and cytology, medical physiology, Pathology, Medical microbiology, Physical Diagnosis)	7
3	MD 1102	Fundamentals of Scientific Research	2
4	MD1003	Clinical skills II	2
5		Elective	4
Total:			30

Sixth Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0702	Preservation of Life II (Urinary System: Human anatomy, Histology, Embryology and Cytology, Medical Physiology, Medical Biochemistry, Pathology, Medical Pharmacology, Physical Diagnosis)	7
2	MD 1401	Introduction to clinical sciences (General surgery, Radiology)	9
3	MD 1103	Biostatistics	4
4	MD 1004	Clinical skills III	6
5		Elective	4

Total:	30
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Seventh Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 1501	Maintenance of Health (Public Healthcare and Epidemiology, Preventive medicine)	10
2	MD 0202	Structure of Life II (Rheumatology, Traumatology and Orthopedics)	8
3	MD 0503	Cycle of Life III (Obstetrics, Gynecology, Surgery of male reproductive system)	12
Total:			30

Eighth Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0602	Support of Life II (Pulmonology, Cardiology)	14
2	MD 0504	Cycle of Life IV (Neonatology, Pediatrics, Pediatric surgery)	10
3	MD 1601	Legal aspects of medical practice	2
4		Elective	4
Total:			30

Ninth Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0703	Preservation of Life III (Gastroenterology, Abdominal surgery)	12
2	MD 0403	Control of Life III (Neurology, Psychiatry)	12
3		Elective	6
Total:			30

Tenth Semester

No	Module/Course Code	Name of the academic course/module	ECTS
1	MD 0303	Protection of Life III (Hematology, Oncology, Allergology and clinical immunology, Clinical pharmacology)	12
2	MD 0704	Preservation of Life IV (Endocrinology, Endocrine surgery)	6
3	MD 0505	Cycle of Life V (Gerontology)	4
4	MD 1701	Physical Rehabilitation and Sports medicine	4
5		Elective	4
Total:			30

Eleventh Semester

No	Module/Course Code	Name of the academic course/module	ECTS
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1	MD 0404	Control of Life IV (Ophthalmology, Otorhinolaryngology)	6
2	MD 0304	Protection of Life IV (Dermatology and STD)	8
4	MD 1801	Anesthesiology and Intensive Care (Critical Medicine)	4
5	MD 0705	Preservation of Life V (Nephrology, Urology)	4
6	MD 1104	Working on the scientific paper	4
7		Elective	4
Total:			30

Twelfth Semester

Nº	Module/ Course Code	Name of the academic course/module	ECTS
1	MD 1901	Clinical Practice I (Internal Medicine)	5
2	MD 1902	Clinical Practice II (Surgery)	5
3	MD 1903	Clinical Practice III (Pediatrics)	5
4	MD 1904	Clinical Practice IV (Obstetrics & Gynecology)	5
5	MD 1905	Clinical Practice V (Family Medicine)	5
6	MD 1906	Clinical Practice VI (Neurology)	5
Total:			30