Georgian National University SEU

One-cycle educational Programme

MEDICINE

CONTENT

General Information

Level of Education: One-cycle educational Programme

Direction: Healthcare (091) Medicine (0912)

Qualification/Degree awarded: Medical Doctor

Language of instruction: English

Duration of study: 6 years

Program volume: 360 ECTS

Programme Director: Maia Advadze

Programme Description

Medicine is a field of the healthcare sphere. It aims at saving lives lives but beyond it, doctors help patients minimize pain, recover from diseases, they learn patients to live with disabling injuries. Doctors deal with the prevention of illness and support of quality of life. Medicine bridges the gap between science and society. Indeed, the application of scientific knowledge to human health is a crucial aspect of clinical practice.

Medicine has grown into multi-faceted branches and covers many specializations that aim at studying processes in the human body, treatment, and prevention of various diseases. The world faces an explosion of many complex diseases requiring new methods of research and treatment.

Medicine helps people recover from everyday diseases, helps in the prevention of various infections. But there are still quite a lot of different unexplored, yet inaccurate diseases that require further research and progress in this direction. The society needs graduates who can serve successfully and fruitfully with professionalism and meet the modern requirements of health care.

The programme seeks to prepare graduates who can surve the society successfully, persue their study at the residency programmes and improve national and global health. Students learn core basic sciences and core clinical clerkships. The Programme learning outcomes is in compliance with the modern national and international requirements and challenges of the field of Medicine.

The programme is partially integrated and corresponds to the 7^{th}-8^{th} level of the Harden's ladder. It involves vertical and horizontal integration. It comprises various blocks like: core basic sciences, preclinical sciences, clinical sceinces, cources developing research skills, courses related to medicine and society, cources developing clinical and professional skills, electives, etc.

Aim of the Programme

Aim of the programme:
The programme aims at providing the graduates with necessary knowledge and competences relevant to the national and international standards of the field that will ensure their further study in professional direction; ensure with the modern,

deep, systemic and integrated knowledge of biomedical, preclinical, clinical sciences and its application into practice, facilitate their motivation for continuous improvement of their knowledge and life-long learning, develop interpersonal, clinical skills, decision making based on the evidence-based data, understanding clinical cases in broad social, cultural contexts to promote health, well being and prevent diseases, understanding of a physician's professional, ethical and legal responsibilities and contribute to the field development in the constantly changing invironment.

Therefor, the goals of the programme is to provide the graduates with the:

- Knowledge of biomedical and clinical sciences, its scientific methods and principles, and the necessity for Life Long Learning (LLL).
- Clinical, interpersonal, and practical skills.
- Case-based clinical reasoning and taking decisions.
- Understanding clinical cases in a social, cultural context.
- Understanding of a physician's professional, ethical, and legal responsibilities.

Learning Outcomes

General Competencies
Knowledge and Understanding
The graduate is able to:

- Demonstrate comprehensive knowledge of the field, principles and methodologies of research in medicine.
- Demonstrate knowledge how to use additional resources effectively within the limits of his/her own specialty.

Skills:
The graduate is able to:

- Provide with the critical analysis of incomplete and contradictory data, provide with its independent analysis, convey the results of analysis, and use them.
- Obtain information from various sources, develop large-scale information and critically evaluate it, use information collected during professional activities.
- Take part in meetings and convey the opinions both in oral and writings.
- Negotiate in the professional context and participate in resolving conflicts.
- Independently define complex problems, determine ways of solving it, analyzing the expected outcomes and take final decision.
- Provide with the critical approach to new information.

Responsibility and Autonomy

The graduate is able to:

- Work independently, select priorities, meet deadlines, properly arrange the resources, and get the work done and account, assess and critically analyze it.
- Adapt to a new environment, work with colleagues, keep professional subordination, use new technologies.
- Management of multidisciplinary environment and adaptation by using new strategic approaches.
- Work in the group as a member and leader, clearly formulate tasks, agree with group members, coordinate their activities and adequately assess the capabilities of group members, manage conflicting and emotional situations.
- Understand the necessity of sustainable renewal of knowledge, objectively evaluate the knowledge and skills, use full spectrum of informational resources, manage his/her own learning process.
- Communicate effectively, listen, ask questions, and deal with nonverbal communication.
- Contribute to the development of professional knowledge and practice.

Field-Soecific Knowledge
Knowledge and Understanding
The graduate is able to:

- Determine the normal structure of human body from cell level till organ systems, functioning of the body, molecular biology and embryonic development of a human body, metabolism and hormone functions, function of the immune system.
- Determine the fundamental principles of behavioral and social sciences – Human development (child, adolescence, adult), human psychology, sociology
- Identify the basic principles of clinical sciences, clinical sciences of different specialties and subspecialties of medicine – pathological structure and mechanism of the disease, infection and mechanisms of its development, immunity.
- Determine the use of antibiotics and resistance to antibiotics; the principles of prescribing the medicines; the side effects of medicines; interaction of medicines; blood and blood transfusion; drug action and pharmacokinetics; segregated drugs.
- Determine the prevention of diseases; lifestyle, diet and eating; health support; screening and supervision of diseases; disability; gender issues in health care; epidemiology; the cultural and ethics influence on health care; resource distributing and health care economy; global health and inequality.
- Determine ethic and legal principles in medical practice – the rights of patients; the rights of people with disabilities; the principles of relations with colleagues.
- Determone the role of doctor in health care system - legislation regarding the medicine; the systems of professional regulations; the principles of clinical audit; the ways of health care access.

1. **Carry out a consultation with a patient**
   - take a case history, carry out physical examination, make clinical judgements and decisions, provide explanation and advice, reassurance and support, assess the patient's mental state
2. **Assess clinical presentations, order investigations, make differential diagnoses, and negotiate a management plan**
   - recognize and assess the severity of clinical presentations, order appropriate investigations and interpret the results, make differential diagnoses, negotiate an appropriate management plan with patients and carers, take care of a terminal patient and his family members, manage the chronic disease.

3. Providing first aid in emergency medical situations (First aid and resuscitation measures)

- Identify and assess the emergency medical conditions, treat emergency medical conditions, provide with first aid; age peculiarities in newborns and children; conduct the basic life maintaining and cardiopulmonary resuscitation activities in compliance with the guidelines; conduct the activities for enhance lifetime maintenance in accordance with the guidelines; treat of traumas according to the guidelines.

4. Drug prescription

- Prescribe drugs clearly and properly with consideration of patient's age, match appropriate drugs with clinical context; review appropriateness of drugs and other therapies and evaluate potential benefits and risks for the patient; treat pain and distress; consider compatibility of drugs before initiation of treatment.

5. Conducting Practical Procedures - vital signs: pulse, respiration, temperature, measure blood pressure, oxygen delivery, patient transportation and treatment, urinalysis, electrocardiography, electrocardiography interpretation, performing respiratory function test; manipulators and manikins - bronchoscopy, venipuncture, venous catheterization, drug injection into the vein and infusion device, subcutaneous and intramuscular injection, urinary catheterization, lumbar puncture, spinal anesthesia, paracentesis, gastric lavage, gastrostomy tube care, putting and removing stitches, wound treatment, suturing, etc.

6. Communicate effectively in a medical context

- Communicate with patient, colleagues, breaking bad news, patient's relatives, disabled peoples, in seeking informed consent, provide with the written communication (including the medical records), in dealing with aggression, with those who require an interpreter, with law enforcement agencies and mass media, with any person regardless of his/her social, cultural, religious and ethnic background.

7. The use of Ethic and Legal Principles in Medical Practice

- Use ethical principles and analytical skills in treatment process, keep confidentiality, get the informed consent and make an appropriate record, issue death certificate, require autopsy, apply Georgian and international legislation during treatment, conduct medical practice in multi-cultural environment.

8. Evaluation of psychological and social aspects regarding patients' disease.

- Evaluate the psychological factors of disease detection and impacts on the patients, the social factors of disease detection and impacts on the patients, recognitize of the stress related to disease, recognitize of the drug and alcohol abuse

9. The use of knowledge, skills and principles based on evidence

- Use evidence in practice, determine and conduct the relevant literature research, critically analyze the published literature, make conclusion and use them in practice

10. Use information and information technology effectively in a medical context

- Keep accurate and complete clinical records, use IT in medical practice, access specific information sources, store and retrieve information, keep personal records.

11. Ability to apply scientific principles, methods and knowledge to medical practice and research

- Identify the research conducting methodology; ietermine the research designing, planning, result processing and conclusion-making skills; use the achievements of biomedicine in practice; report/review writing skills based on critical; provide with the analysis of the research literature in biomedicine; determine the ethics of conducting scientific research.

12. Implementation of health promoting events, engage with public health care issues, efficient performance within the health care system

- Conduct the treatment that minimizes the risk of damage to the patient; implement measures for the prevention of infection spread; understand ones' own health problems and evaluating ones' own health with regard to professional responsibilities; participate in health promotion events both on individual and population-wide level; demonstrate the leadership skills for the improvement of healthcare system; facilitate the changes in healthcare system for strengthening the services and improving the results; work with patients and their families for enhancing the healthy behaviors; contribute to the improvement of community and population health.

13. Professionalism

Professional attributes

- Show probity, honesty, ethical commitment; commitment to maintaining good practice, concern for quality; critical and self-critical abilities, reflective practice; empathy; creativity, initiative, interpersonal skills, leadership skills

Professional working

- Show the ability to recognize limits and ask for help, work autonomously when necessary, solve problems, make decisions, work in a multidisciplinary team, communicate with experts in other disciplines, lead others, adapt to new situations, capacity for organisation and planning.

The doctor as expert

- Show capacity for analysis and synthesis, applying knowledge in practice, research skills, to learn (including lifelong self-directed learning), teach others

The global doctor

- Appreciate diversity and multiculturality, understand cultures and customs of other countries, work in an international context, show knowledge of a second language, general knowledge outside medicine.

Programme Structure

The programme structure and content are developed in compliance with the educational programme standards, Benchmark of Medicine, the Procedures of planning, development, approval, promotion, modification, and cancellation of educational programme and the methodology of programme development.

The program structure and content were developed after the market research and identification of trends and requirements of the field of Medicine. Several meetings and consultations have been done with the stakeholders (representatives of associations, representatives from clinics, university graduates, etc.).

The information and the data have been processed by the medical committee.

The content, scope, and comprehensive nature of the program in Medicine correspond to the master's level. The program implies the course prerequisites. The content and structure of the program is relevant to the awarded qualification and ensures achievement of learning outcomes. The program courses are coherent. The admission for the following courses is adequate. The program is built following the Georgian legislation and the European credit system. It matches the modern achievements, requirements, and market trends of the sphere.

Clinical and Professional Skills (CAPS) are taught during all 12 semesters. The skills developed within these courses correspond to the topics covered in the relevant semester's biomedical, preclinical, and clinical courses. The same activities may be developed at different levels thus advancing students' skills. In basics of medicine is used OSPE exam. The courses in Clinical and Professional Skills are held in simulation labs and clinics and end with the OSCE exam.

The programme is constructed by the ECTS credit system, duration of studies 12 semesters measured in 360 ECTS credits. One credit stands for 25 astronomic hours that cover contact hours and hours of independent work. The student is to receive about 30 credits per semester, 60 credits – per year. According to the features of the programme and the students' requirements, the number of credits can be less or more than 60, but not more than 75 per year. All courses are provided with one midterm exam, semester everyday activities and the final exam. A student who fails to earn 41 points during the semester activities, and the final exam scores, is not eligible to sit for the additional exam. A student gaining 41-50 points is eligible to sit for the additional exam. A student is eligible to set for the additional exam in the same semester within at least 5 days after the announcement of the result.

First two years students study basics of medicine – Body Structure in the norm (integrated modules: anatomy-histology-imaging), Body Function in the norm and neuroscience (integrated modules: physiology-biochemistry), main concepts of biomedical sciences: Cell Biology (integrated with biochemistry), Molecular Biology and Genetics, Immunology, basics of research – argumentation, reasoning skills, health and society, Clinical and Professional skills (CAPs) (integrated with Medical Ethics and Communication in Medicine).

Integrated modules are taught in the format of interactive lectures, practical training, and seminars, labs, simulation lab., etc.). Students use high-fidelity mannequins, anatomical specimens, microscopic specimens, audio-video equipment, etc. Lecturers use Problem-Based learning – (PBL, CBL, CBCR)

The third-year cover preclinical courses – health and defense, basics of clinical sciences, research skills, basics of physical and clinical diagnosis, health and society, and Clinical and Professional skills. Basics of Clinical Sciences covers integrated modules of Pathology and Pharmacology, Health and Defence cover integrated modules of Microbiology, Pharmacology,

and Immunology. The physical diagnosis provides basic methods of a patient's physical examination according to the systems of the body. In compliance with it, the relevant methods of clinical investigation (radiology and laboratory) are taught in the courses of Clinical Diagnosis. The courses of Clinical and Professional Skills (CAPs) are held in clinics and simulation labs. Courses dealing with diagnostic methods use Case-Based Learning (CBL cases). Students are engaged in clinical problem-solving and develop skills of synthesis and analysis of information and its clinical application.

From the fourth year, students deal with clinical courses in the format of clinical rotations/clerkships – Internal Medicine, Infectious Diseases, Surgery, Obstetrics & Gynecology, Pediatrics, Neurology, Psychiatry, Leadership, research skills, Clinical and Professional skills (CAPs), etc. Clinical courses from the 4th year have integrated OSCE exams each semester.

The sixth year is devoted to the advance practice in medicine. Students study clinical activities in various inpatient and outpatient settings – Family Medicine, Rehabilitation and Sports Medicine, Geriatrics and Palliative Care, Emergency Medicine, Personalized Medicine, Clinical Pharmacology, etc.

The courses of the Block of Research Skills are studied during all 6 years and teach students the argumentative writing, medical databases and working in it, methods of research skills, epidemiology, and biostatistics, evidence-based medicine.

The courses of the Block of Health and Society consists of 5 courses that cover topics in cultural, ethical issues, their influence on healthcare, prevention of diseases, life-style, health promotion, medical sociology, the gender issues in healthcare, healthcare management, global health, etc.

Programme Plan

See Attachment N1

Organisation of Teaching

General Description

One-cycle educational programme in Medicine is constructed by ECTS credit system, duration of studies 12 semesters measured in 360 ECTS credits. One credit stands for 25 astronomic hours that cover contact hours and hours of students' independent work. Each student is to receive about 30 credits per semester, 60 credits – per year. According to the features of the programme the number of credits can be less or more than 60, but not more than 75. All courses are provided with semester ongoing activities (40 grade points), one midterm exam (20 grade points), and the final exam (40 grade points).

The annual number of weeks equels to 36 weeks, the duration of each semester corresponds to 18 weeks, that consists of 15 teaching weeks, weeks for final and two make-up exams. In XVI-XVII weeks are held final exams, in XVII-XVIII weeks – make-up exams.

The students get the information related to the educational process via the electronic system (reg.seu.edu.ge). Each student receives his/her ID and password for the electronic database. Students have remote access to the database. They can choose and take registration on different courses according to the semester and in compliance with prerequisites, get information related to the courses, evaluation system, read syllabi, etc. The midterm exam of each course is on the 7^{th} and 8^{th} weeks. Each course ends with the final exam.

Assessment of the learning outcomes is carried out by the direct and indirect assessment methods.

The direct assessment method envisages the assessment of a student's academic achievements in the course. It is based on the evaluation of course learning outcomes by the relevant methods. The forms of assessment are defined in each syllabus. The programme uses the following methods of assessment: quiz, test (multiple-choice questions (MCQs), open questions, short answer questions (SAQs)), presentation of a clinical case, demonstration of clinical skills, research paper, Objective Structured Practical Examination (OSPE), Objective Structured Clinical Examination (OSCE), Lab work, Case-Based Learning (CBL), Case-Based Clinical Reasoning (CBCR), etc.

The assessment of students' performance at the OSCE exam is conducted by the checklists. Listed technical elements of skill and manipulations provide the objective evaluation of competences and learning outcomes achieved by the student. The exam uses simulators and standardized patients.

The courses are delivered in the classes equipped with the relevant facilities. These are simulation labs, Chemistry and biochemistry Lab., Anatomy class with anatomical models, specimens and posters, histology and microbiology class with microscopes and specimens. All classes are equipped with audio-video facilities.

The indirect method of assessment uses interviews with stakeholders (students, graduates, staff involved in the implementation of the programme, employers), and analysis of the survey results. It provides the indirect method of assessment of the educational programme.

The direct and indirect assessment delivers the quality assurance service with the programme director, the programme board members, the staff involved in the implementation of the programme. The decision and further steps depend on the results of survey.

Study on the couses – conduct the qualitative research, interviews with the course lecturer and students, in-depth study of the course syllabus.

According to the results the measures to be taken are the following:

- ✔ Changing the teaching and learning methods.
- ✔ Modification of workload allotted to the educational course.
- ✔ Modification of the assessment methods and forms of the course.
- ✔ Modification of the textbooks of the course.
- ✔ Modification (imposing or changing) of the course prerequisites, etc.

PREREQUISITES FOR ADMISSION

Prerequisites for admission:

a) The holders of a certificate of full general education or those with the equeal status on the basis of the results of Unifiued Entry Examinations shall have the right to take the programme at the University.
b) Foreign citizens and stateless persons who have received general secondary or equivalent education in a foreign country.
c) Georgian citizens who acquired general secondary education in a foreign country or have studied the last two years of general secondary education abroad.

d) Foreign citizens (except students enrolled in the joint programme of higher education and exchange students) who study or studied and receive credits or qualifications in a higher educational institution recognized by the state in concern.
e) Georgian citizens (except students enrolled in the joint programme of higher education and exchange students) who live/lived, study/ studied in a foreign country for a period set by the Ministry of Education and Science of Georgia and receive credits or qualifications in a higher educational institution recognized by the state.
f) Mobility students enrolled according to Minister's order N10/N (04.02.2010) on the Approval of the Procesure of Movement between Higher Educatio Institutions.

The Universty holds an interview with the prospective students who have the right to study without passing the Unified Entry Examinations. These persons are required to confirm their English language proficiency at B2.

TEACHING-LEARNING METHODS

Teaching and learning methods are based on the modern methods of education that are supported by the classrooms equipped with modern technologies, labs, audio-visual facilities, modern methods of teaching and assessment, etc. It ensures the achievement of learning outcomes defined by the programme. Students can visit labs and specialized classes during their independent work according to the arranged schedule and practice and learn there using anatomical models, posters, video recordings, microscopes, and specimens.

The methods of teaching and learning are the following:

Lecture – a process in which both a lecturer and a student take part. The basic aim of the lecture is to help students to comprehend the major notions of the subject taught which implies interaction and creative and active perception of the material. Attention is paid to basic concepts, definitions, designations, assumptions. The lecture provides scientifically concepts. Facts, examples, schemes, drafts, experiments, and other visual aids help explain the idea conveyed by the lecture. The lecture ensures the correct analysis of the topic and is based on the ability of the students to perceive and understand it.

Seminar - under the supervision of a lecturer a group of students find and perceive additional information, prepare presentations, write essays, etc. This enables students to deepen their knowledge of the themes studied at the lecture. At the

seminar reports are presented and discussed, conclusions are made. The lecturer coordinates these processes. Students are provided with anatomical models, posters, atlases, microscopic specimens, video programs.

Discussion – collaborative exchange of ideas among a teacher and students or among students for the purpose of furthering students thinking, learning, problem solving skills, understanding, or literary appreciation. Participants present multiple points of view, respond to the ideas of others, and reflect on their own ideas in an effort to build their knowledge, understanding, or interpretation of the matter at hand. Discussions may occur among members of a small group, or a whole class and be teacher-led or student-led.

Debate – requires students to work as individuals and as a team to research critical issues, prepare and present a logical argument, actively listen to various perspectives, differentiate between subjective and objective information, ask cogent questions, integrate relevant information, develop empathy, and formulate their own opinions based on evidence.

Brainstorming – a method that students stimulates students' critical thinking and creativity, boosts problem-solving skills. The issue is discussed and evaluated in a group. Students express their ideas, assumptions related to the topic promoted by the lecturer. The discussion facilitates the lecturer.

Working in a group (collaboration) – students are divided into groups and are given different tasks. Group members work over it, discuss and communicate, provide one's point of view with arguments based in analysis and synthesis. The strategy promotes involvement of all students into educational process.

Practical Training - Bedside teaching – teaching in the presence of patient and is the core teaching strategy during the clinical years of a medical student - hands-on learning experience in a supervised setting aimed at the professional preparation and training of a student. Students should be exposed to various areas of the organization in which they work. Practical training provides learning opportunities related to all parts of the course programme. The student always works with the support and appropriate help from the lecturer. However, the student is engaged in carrying out a particular activity. The course is held as a practical training in a simulation lab. During the semester skills are developed by role-playing or working on manikins. At the midterm and final exams are used simulated patients.

Clerkship - a part of clinical rounds where both student and instructor attend the patient's bedside to discuss the case and/or demonstrate a clinical procedure. This is the student's opportunity to see how the attending physician relates to the patient and to get hands-on instruction in interviewing a patient, physical examination, and counseling skills. In teaching in the patients' presence, learners have the opportunities to use all of their senses and learn the humanistic aspect of

medicine such as role modeling, which is vital but difficult to communicate in words. Students practice and develop their skills at the simulation lab. on manikins, by role-playing, etc.

Night on call – staying in the hospital overnight and care for the patients, and care for the new admissions.

Lab. – working with microscopes in laboratory, viewing microscopic specimens, identification of tissue samples, the pathological process, the level of lesion, outcome of the pathological process.

Role-playing – assume the roles of a patient and a doctor and develop and demonstrate practical/clinical skills.

PBL (Problem-Based Learning) - a method of learning and teaching which allows students to focus on how and what they will learn. An unfamiliar, complex problem, situation or task is presented to the students and students are required to determine for themselves how they will go about solving the problem. This allows students to utilize their prior knowledge in the topic area and identify the gaps in their knowledge as they attempt to solve the problem, facilitates critical analysis of complex information, its synthesis, evaluation and making decision in a complex multidisciplinary environment, productive collaboration in a team.

CBL (Case-based learning) - an approach where students apply their knowledge to real-world scenarios, promoting higher levels of cognition. In CBL classrooms, students typically work in groups on case studies, stories involving special cases and/or scenarios. The cases present a disciplinary problem or problems for which students devise solutions under the guidance of the instructor. CBL utilizes collaborative learning, facilitates the integration of learning, develops students' intrinsic and extrinsic motivation to learn, encourages learner self-reflection and critical reflection, allows for scientific inquiry, integrates knowledge and practice, and supports the development of a variety of learning skills.

CBCR (Case-based clinical reasoning) – is a mental process that happens when a student encounters a patient and is expected to draw a conclusion about (a) the nature and possible causes of complaints or abnormal conditions of the patient, (b) a likely diagnosis, and (c) patient management actions to be taken. Clinical reasoning is targeted at making decisions on gathering diagnostic information and recommending or initiating treatment.

Methods of Assessment

Quiz – written test – checking the assessment of specific cases within the studied material and skills of integration of knowledge.

Test - a written work at the mid-term and a final exams; assessment of theoretical knowledge.

Verbal presentation – demonstration of knowledge of theoretical topics, discussion over specific issues in the form of narration or answering questions, ability to solve tasks and arrive to correct solutions.

Demonstration of practical/clinical/professional skills – gather the data for case history, physical examination and registration of data; examination of a surgical patient; treatment of urgent cases; delivery of a basic first aid care; treatment of pain and distress; conduct local anesthesia; treatment of bleeding; transfusion of blood substitutes; perform suturing/putting stitches; subcutaneous and intramuscular injections, vein puncture; catheterization of the vein; Use the infusion equipment for introduction of medicines into a vein; Remove stitches and drainage probes, etc.

Presentation of a clinical case – presentation of a patient's case that facilitates students' ability to demonstrate effective clinical problem solving and judgement skills for addressing a patient's problems, ability to interpret available data and integrate information to generate differential diagnosis and treatment plan. It consists of description of the patient's case (case history), analysis and synthesis of information (listing problems and differential diagnosis), case management (diagnosis and treatment plan).

Research Paper - in-depth analysis of a particular topic/issue. It requires reading and processing of additional literature and providing it in a written form. It enables the student to develop deeper knowledge, understanding, capabilities and attitudes of the course. It offers the opportunity to enhance the subject/field knowledge, capability to critically, creatively integrate the knowledge; clearly present and discuss the conclusions as well as the knowledge and arguments that form the basis for these findings in written and spoken English; understand the ethical aspects of a research work.

OSPE (Objective Structured Practical Examination) – an objective instrument for the assessment of theoretical, practical and problem-solving skills in preclinical sciences. Students are given anatomical, histological specimens, radiological images for identification and description of its structures.

OSCE (Objective Structured Clinical Examination) – the assessment method based on students' performance that measures their clinical skills/competencies. It is a hand-on, real-world approach to learning and enables a reliable assessment of a student's competence. Its content and scoring procedures are standardized. Each examination station is designed to focus on an area of clinical competence. Each student is asked to perform the same task within the same timeframe. The tasks in each OSCE station represent real-life clinical situations.

System of evaluation

For the assessment of students is used 100-grade point system apvoved by the Order N3 of the Minister of Education and Science of Georgia.

Credits shall be earned after achieving learning outcomes of the relevant course that is reflected in the positive assessment invisaged by the article 4, paragraph 9 "a" of the N3 Order of Minister of Education and Science on the Approval of the Procedure of Calculation of Higher Educational Programmes in Credits (05.01.2007).

Single-case evaluation of the learning outcomes of a student at the final exam is not acceptable.

The assessment during the semester shall envisage:

a) Midterm assessments
b) Final assessment.

Maximum grades for a study course shall be 100.

The maximum score for the final exam is set by the University.

Evaluation of students under the regulation is carried out every semester.

Evaluation of students is determined by the assessment system under established rules of the general evaluation system of invisaged by the N3 Order of Minister of Education and Science on the Approval of the Procedure of Calculation of Higher Educational Programmes in Credits (05.01.2007).

University assessment allows five posditive and two negative assessments.

a) **Five positive grades**

a.a) (A) Excellent – 91-100 grade points;
a.b.) (B) Very good – 81-90 grade points;
a.c) (C) Good – 71-80 grade points;

a.d) (D) Satisfactory – 61-70 grade points;
a.e) (E) Acceptable – 51-60 grade points.

b) Two types of negative grades:
b.a) (FX) Fail – 41-50 grade points, meaning that a professional student requires some more work before passing and is given a chance to sit an additional examination after independent work;
b.b) (F) Fail –40 and less grade points, meaning that the work of a professional student is not acceptable and he/she has to study the subject anew.
In the case of FX assessment, the student can set for the make-up exam no less than 5 days after the announcement of the examination results.

In the case of FX assessment, the student can set for the make-up exam no less than 5 days after the announcement of the examination results.

The minimum score for passing the midterm and final exams is 50% of the maximum score. The same applies to the integrated course modules. In each module, the student must score 50% of the points assigned to each module. If a student does not score the required points in a course or one or two modules of an integrated course, they are eligible to take the makeup exam.

The minimum score for admission to the final exam is 50% of the sum of ongoing and midterm assessments.

If a student fails to pass the make-up exam, he/she will study the course / the whole integrated course (all modules) again.

ASSESSMENT COMPONENTS

The assessment system of students learning outcomes is transparent. Assessment methods in each component of the educational programme ensures the achievement of learning outcomes defined by the same component, which is confirmed by the assessment results;

The 100-grade point evaluation system shall cover different components reflecting the students' quality of work and achievement of learning outcomes in each component of the course. Each component shall be alloted sertain number of points, particularly:

a) Semester activity/ongoing assessment – 0 – 40 points (all student activities during a semester: working in a group, research paper, demonstration of clinical skills, presentation of a clinical case, quiz, etc.) The lecturer distrubutes 40 points among the semester activities.
b) One midterm exam/assessment – 20 points.
c) Final exam – 40 points (the format of the exam is defined by the course lecturer).
d) The minimal number of points at the final exam is 50% of grade points (the course lecturer is allowed to set internal limits for each semester activity as a prerequisite for admission to the final exam).
e) The thresholed for the final exam is 50%.

Further Studies

A graduate holding a higher medical institution diploma shall have the right to:

1. complete a postgraduate vocational training programme (or the relevant vocational programme abroad recognized by the country in concern) and acquire the right to perform an independent medical practice after passing a state certification examination.
2. continue education at the third level of higher education system – doctoral level.

Field of Employment

The graduate of one-cycle higher education programme (Medical Doctor) is not granted to run the independent medical practice according to the applicable legislation, she/he can be:

1. employed as a Junior Doctorn under the responsibility of an independent medical practitioner
2. carry out research and teaching activities in the theoretical fields of medicine or other fields of health care that do not include an independent medical practice.

Programme partners

- ✔ An agreement was reached with Medipol University Turkey and Memorial Hospital Group (Turkey) In 2019 and 2020 respectively, on the implementation of short-term visits to the leading hospitals of Turkey for students of the SEU Medical School. The visits are planned during winter/summer holidays.
- ✔ AMOpportunities (AMO) connects medical students, graduates, and professionals with U.S. clinical experiences. Our platform offers individuals the opportunity to explore and apply for clinical experiences at 200+ clinical sites across 70+ medical specialties and subspecialties.

Programme Internationalisation

To support the strategic priority of enhancing its brand image the University is actively works in the following area of international activities:

- ✔ Participates in international education exgibitions, penetration of new markets and raising awareness of SEU. Since 2017, after establishing the first English taught programs, SEU, regularly participates in international education exhibitions across Europe and Asia. In 2017-2019, SEU participated in 3 different exhibitions, which is one of the important components of promoting the university in the international market and raising its awareness. Within the framework of the exhibition, new contacts and partnerships have been established, new agreements were signed and information about the university distributed. In addition, to promote SEU internationally, university actively uses social media channels and website where information is disseminated in 2 languages, Georgian and English. In the future, SEU plans to use the participation in international exhibitions even more strategically and systematically to ensure the attraction of a more diverse student population and in line with its development plans for further English taught programs.
- ✔ The School of Medicine is registered in the database of the Medical Council of India (MCI), which means that the medical program meets the standards of this country and the diploma is recognized in the Republic of India.
- ✔ The School of Medicine is registered by the World Directory of Medical Schools.

International partners

Membership in international associations and participation in their events: University and / or its separate school / department became member of 4 international associations in 2020, including:

- ✔ Association for Medical Education in Europe (AMEE)
- ✔ The European Association of Medical Schools in Europe (AMSE).

EXCHANGE PROGRAMMES

- **Erasmus+** Georgian National University together with 13 other European and Asian Universities have been granted an Erasmus+ projectin 2019, which is focused on Capacity Building in the Field of Higher Education focusing on medical education. Both administrative and academic staff are involved in the project, which will help to develop their skills andhelp to broaden horizons.
  Further information can be found at:

  http://www.seu.edu.ge/ka/news/360/?fbclid=IwAR2LCEddocjvpv0qBKDv0uD4XYoAwUf6V517NC0cymBvOH1aER8xiJR65CY

PROGRAMME RESEARCH PLAN

All mandatory courses of the programme are evaluated by the direct method of assessment. Each mandatory course of the Programme where at least 10 students are registered, is tested for A (excellent) and F (fail) grades. If an A (excellent) grade takes more than 10%, or an F (fail) grade takes more than 10% of students, the course requires revision.

The achievement of the programme learning outcomes is measured by the scale similar to Gauss diagram/distribution. According to it the maximum A (Excellent) and minimum E (Acceptable) positive grades should achieve no more than 10% of students. 20% deviation from this point requires the review of the course relatred to the following indicators:

- Allocation of credits/workload
- Topics
- Volume
- Forms and methods of teaching
- Forms and methods of assessment
- Number of students in a group

- Textbooks

PROGRAMME RESOURCES

- ☒ Classrooms equipped with modern technologies, specialized classes, labs (chemistry and biochemistry lab; simulation labs; histology, microbiology labs; anatomy lab, etc.), IT infrastructure, etc.
- ☒ The University has agreements with clinics where the clinical courses of the curriculum are delivered.
- ☒ Library equipped with all required modern textbooks and various books for additional reading (printed books and e-books), computers where the students can study, work independently, work in a group of students. The students have access to databases, libraries, etc.

MATERIAL RESOURCES

The infrastructure and facilities of the Georgian National University SEU ensure achievement of Programme learning outcomes. The University provides students with the following facilities:

- ☒ Sporting facilities – swimming pool, gyms, stadiums, indoor sports courts, outdoor sports courts, dancing hall, etc.
- ☒ Medical facilities – a medical center and a medical professional who takes care of the students who need support in it or have health problems.
- ☒ Student societies – the students can join or create a group with likeminded people, deal with activities that they enjoy.

ACADEMIC STAFF

N	Name	Surname	Position	Qualification	Additional Information	Courses
1	Irma	Khachidze	Professor	PhD		Physiology

2	Zurab	Marshania	Professor	PhD		Sexual Medicine
3	Shalva	Chovelidze	Professor	PhD		Urology
4	Merab	Janelidze	Professor	PhD		Surgery
5	Maia	Merlani	Professor	PhD		Chemistry
6	Tsisana	Giorgadze	Professor	PhD		Cell Biology, Molecular Biology & Genetics
7	Lasha	Loria	Professor	PhD		Health & Society
8	Matrona	Chachua	Professor	PhD		Biochemistry
9	Gocha	Barbakadze	Professor	PhD		Internal Medicine
10	Otar	Chokoshvili	Professor	PhD		Research skills
11	Giorgi	Gurgenidze	Professor	PhD		Immunology; Communication in Medicine; Pharmacology
12	Gocha	Chutkerashvili	Associated professor	PhD		Neurosurgery
13	Ekaterine	Zangaladze	Associated Professor	PhD		Microbiology
14	Megi	Dumbadze	Associated Professor	PhD		Pathology
15	Nato	Nakudashvili	Associated Professor	PhD		Otorhinolaryngology
16	Natalia	Maghlakelidze	Assosiated Professor	PhD		Ophthalmology
17	Sophio	Dzneladze	Assistent professor	PhD		Biochemistry
18	Maka	Kvirikashvili	Assistent professor	PhD		Internal Medicine
19	Shorena	Samakashvili	Assistent professor	PhD		Chemistry
20	Sophio	Uchaneishvili	Assistent professor	PhD		Research Skills; Cancer Biology
21	Irina	Katsarava	Assistent professor	MD		Otorhinolaryngology
22	Irma	Korinteli	Assistent professor	MD		Pediatry

23	Nino	Badridze	Associated professor	PhD		Research skills
24	Gvantsa	Chkadua	Associated professor	PhD		Biochemistry
25	Maka	Buleishili	Assosiated Professor	PhD		Internal Medicine; Clinical and Professional Skills; Family Medicine, Physical Diagnoses
26	Zakaria	Hamida Sakeri	Assistant Professor	MD		Histology
27	Maia	Demurishvili	Assistent professor	PhD		Radiology, Imaging
28	Magda	Tortladze	Assistant Professor	PhD		Obstetrics & Gynecology
29	Mikheil	Metreveli	Assistent professor	PhD		Internal Medicine
30	Lali	Vashakidze	Assistent professor	MD		Pediatrics, Neurology
31	Pati	Dzotsenidze	Assistant Professor	PhD		Research skills
32	Nino	Turashvili	Assistent	MD		Internal Medicine
33	Eka	Chkonia	Invited Lecturer	PhD		Psychiatry
34	Ekaterine	Kvaratskhelia	Invited Lecturer	PhD		Endocrinology
35	Anzor	Chomakhidze	Invited Lecturer	MD		Anesthesiology and Intensive Care
36	Vera	Tsomaia	Invited Lecturer	PhD		Physiology
37	Meri	Gonashvili	Invited Lecturer	MD		Anatomy
38	Ekaterine	Mamukelashvili	Invited Lecturer	MD		Anatomy
39	Marina	Nebieridze	Invited Lecturer	PhD		Histologyni
40	Nino	Kavtaradze	Invited lecturer	MD		Rheumatology
41	Lili	Grigalashvili	Invited Lecturer	MD		Radiology
42	Zaza	Telia	Invited Lecturer	MD		Dermatology
43	Gocha	Chitaishvili	Invited lecturer	PhD		IT Technologies
44	Giorgi	Burjanadze	Invited lecturer	PhD		Biochemistry
45	Gia	Chelidze	Invited Lecturer	MD		Surgery
46	Teona	Gubianuri	Invited Lectuer	Master		Phsychology

47	Nino	Chkhikvadze	Invited Lectuer	MA		English Langusge, Research Skills
48	Manana	Losaberidze	Invited Lectuer	Master		Health Informatics
49	Manana	Maridashvili	Invited Lecturer	PhD		Research Skills; Health and Society
50	Ekaterine	Abzianidze	Invited Lectuer	PhD		Geriatric and Palliative Care
51	Mzia	Tsiklauri	Invited Lectuer	PhD		Clinical and Professional Skills
52	Maka	Kuchava	Invited Lectuer	MD		Health and Society
53	Tengiz	Alpenidze	Invited Lecturer	MD		History of Medicine
54	Ia	Burduli	Invited Lectuer	PhD		German Language
55	Maia	Zhamutashvili	Invited Lectuer	PhD		Infectious Diseases
56	Ekaterine	Dolmazashvili	Invited Lectuer	PhD		Infectious Diseases
57	Aleksandre	Khmaladze	Invited Lectuer	Master		Philosophy; Sociology
58	Ia	Tsintsadze	Invited Lecturer	PhD		Internal Medicine
59	Irine	Sakhelashvili	Invited Lectuer	PhD		Bioethics, Research Skills
60	Eliso	Murvanidze	Invited Lectuer	PhD		Rehabilitation and Sport Medicine
61	Vakhtang	Surguladze	Invited Lectuer	MD		Leadership
62	Tamta	Kobakhidze	Invited Lectuer	MD		Rheumatology
63	Tamar	Aladashvili	Invited Lecturer	MD		Psychiatry
64	Nino	Chankvetadze	Invited Lecturer	Master		Georgian Language
65	Nina	Mikeladze	Invited Lecturer	MD		Neurology
66	Ekaterine	Kupatadze	Invited Lecturer	MD		Lab Medicine
67	Koba	Sirbiladze	Invited Lecturer	MD		Traumatology
68	Nino	Pirtskhelani	Invited Lecturer	PhD		Personalized Medicine
69	Luiza	Gabunia	Invited Lecturer	PhD		Pharmacology
70	Teona	Danelia	Invited Lecturer	PhD		Maxillo-Facial Surgery
71	Tamar	Sanikidze	Invited Lecturer	PhD		Biophysics
72	Ekaterine	Ratiani	Invited Lecturer	MD		Laboratory Medicine
73	Levan	Gopodze	Invited Lecturer	PhD		Surgery
74	Nino	Gorgadze	Invited Lecturer	MD		Internal Medicine
75	Maia	Ananiashvili	Invited Lecturer	PhD		Hematology
76	Nino	Sikharulidze	Invited Lecturer	MD		Anatomy
77	Erekle	Gigiadze	Invited Lecturer	MD		Radiology, Imaging

78	Gulnara	Kiliptari	Invited Lecturer	PhD		Anesthesiology and Intensive Care, Emergency Medicine
79	Lali	Koptonashvili	Invited Lecturer	MD		Clinical and Professional Skills Health and Society
80	Shorena	Khuchukhidze	Invited Lecturer	PhD		Psychosociology and Health Physiology

Practical resources

1	Palliative Care Clinic--PALMEDI
2	Medical Clinic--BAIEBI
3	National Center for Ear, Nose and Throat Diseases, Japaridze-Kevanishvili Clinic
4	University Clinic named after S. KHECHINASHVILI
5	Academician O. Ghudushauri National Medical Center
6	Jerarsi Clinic
8	Pediatric private Clinic
10	Imedi Clinic
11	Pediatric private Clinic
13	American Hospital Tbilisi (Affiliated Clinic)
14	Geo Hospitals

16	Clinic of Prof. Zurab Marshania
17	Central University Clinic named after Academician Nikoloz Kipshidze
21	Tbilisi Central Hospital
22	Academician Tsitlanadze Scientific-Practical Center of Rheumatology
23	Infectious Diseases and Aids Center
24	National Center For TUBERCULOSIS AND LUNG DISEASE
25	children's clinic named after Tsitsishvili
27	Medical Center VIVAMED
28	Eristavi National Center of Experimental and Clinical Surgery
31	Aversi Clinic Central and Isani Branch
33	Aversi Centrar Clinic
34	Center For Mental Health And Prevention Of Addiction
35	Amtel Hospital

38	Tbilisi City Medical
39	Caucasus Medical Centre
42	Todua Clinic-Vera branch
43	Curatio Clinic
45	Infectious Diseases and Aids Center
48	Iv. Bokeria University Hospital
50	The National center of surgery

Plan of Programme development

The development of the programme is an ongoing, continuous and comprehensive process that is intended to improve effectiveness. Educational programmes should continue to evolve according to needs assessment, identify weeknesses and determine areas requiring modification. Equally important in the program development is the need to identify stakeholders' requirements.

The primary indicator is the Universaity's goals at a specific level of the strategic planning. After revision of the University's vision, mission, values and strategic goals the programme committee should draft a framework for the goals to be met.

Programme development requires:

- Market research, identification of competencies it requires and support the program by the relevant cources and learning outcome.
- Identification of needs of the community in concern.

The University is planning permanent upgrading of the infrastructure of the School of Medicine:

- ☒ Develop the Programme infrastructure - 3D anatomical theatre, Anatomage, Body Interact (clinical simulation with virtual patients)
- ☒ Upgrade Simulation Lab. with manikins, simulations, etc.
- ☒ Train academic staff in preparation of OSCE checklists.
- ☒ Train OSCE Evaluators
- ☒ Introduce the database of simulation patients and train them.
- ☒ Train the academic staff in development of MCQ quesrtins
- ☒ Train the academic staff in development of PBL and CBL cases
- ☒ Train the academic and administrative staff in online systems and its use in teaching.
- ☒ Inhance international cooperation for students, promote theit participation in students' international conferences, international practice.
- ☒ Inhance international cooperation for academic staff, promote theit participation in international conferences, research activities.

One-Cycle Educational Program in Medicine																							
№	**Courses**	Prerequisites	Credits	Hours	Distribution of hours							Semesters											
					Contact hours					Contact hours	Hours of independent work	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
					Lecture	Practicac lasses/semi	PBL	Group work	Midterm exam			Credits											

						nars																	
University Courses												**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
1	Foreign Language I	N/A	4	120		4		60	3	63	57	**4**											
2	Foreign Language II	Foreign Language I	4	120		4		60	3	63	57		**4**										
3	Foreign Language III	Foreign Language II	4	120		4		60	3	63	57			**4**									
4	Academic Writing	N/A	4	120	1	2		45	3	48	72	**4**											
225																							
Mandatory Courses												**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**IX**	**X**	**XI**	**XII**
1	Body structure I	N/A	8	240	2	5	12	105	3	108	132	**8**											
2	Cell Biology	N/A	6	180	2	4		90	3	93	87	**6**											
3	Clinical and Professional skills I	N/A	2	60		2		30	2	32	28	**2**											
4	Medical Ethics	N/A	2	60	1	1		30	2	32	28	**2**											
5	Introdution to Psychology		2	60	1	1		30	2	32	28	**2**											
6	Body structure II	Body structure I	6	180	2	5	12	105	3	108	72		**6**										
7	Body Function I	N/A	7	210	2	4	12	90	3	93	117		**7**										
8	Molecular Biology and Genetics	Cell Biology	5	150	1	3		60	3	63	87		**5**										
9	Clinical and Professional skills II	Clinical and Professional skills I	2	60		1		30	2	32	28		**2**										
10	Health and Society I	N/A	4	120	1	2		45	3	48	72		**4**										

11	Body structure III	Body structure II	6	180	2	5	12	105	3	108	72			**6**								
12	Body Function II	Body Function I	8	240	2	5	12	105	3	108	132			**8**								
13	Neuroscience	Body structure I, Body Function I	5	150	1	3		60	3	63	87			**5**								
14	Clinical and Professional skills III	Clinical and Professional skills II	2	60		2		30	2	32	28			**2**								
15	Health Informatics	N/A	3	75	1	1		30	2	32	43			**3**								
16	Body structure IV	Body structure III	8	240	2	5	12	105	3	108	132				**8**							
17	Body Function III	Body Function II	8	240	2	5	12	195	3	108	132				**8**							
18	Immunology	Molecular Biology and Genetics	6	180	1	3		60	3	63	117				**6**							
19	Clinical and Professional skills IV	Clinical and Professional skills III	2	60		2		30	2	32	28				**2**							
20	Communication Skills	N/A	2	60	1	1		30	2	32	28				**2**							
21	Health and Society II	Health and Society I	4	120	1	2		45	3	48	72				**4**							
22	Health and Defense I	Immunology	4	120	1	2		45	3	48	72					**4**						
23	Physical Diagnosis I	Body structure IV, Body function III, Neuroscience, Immunology	5	150	1	3		60	3	63	87					**5**						
24	Clinical and Professional skills V	Clinical and Professional skills IV	2	60		2		30	2	32	28					**2**						
25	Research Skills I	N/A	5	150	1	2		45	3	48	72					**5**						
26	Clinical Diagnosis I	Body structure IV, Body function III,	4	120	2	2		60	3	63	57					**4**						

		Neuroscience, Immunology																					
27	Basics of Clinical Science I	Body structure IV, Body function III, Neuroscience, Immunology	8	240	2	4	12	90	3	93	107					**8**							
28	Health and Defense II	Health and Defense I	5	150	1	3		60	3	63	87						**5**						
29	Physical Diagnosis II	Physical Diagnosis I	5	150	1	3		60	3	63	87						**5**						
30	Clinical and Professional skills VI	Clinical and Professional skills V	2	60	1	1		30	2	32	28						**2**						
31	Clinical Diagnosis II	Clinical Diagnosis I	4	120	2	2		60	3	63	72						**4**						
32	Health and Society III	Health and Society II	4	120	1	2		45	3	48	72						**4**						
33	Basics of Clinical Science II	Basics of Clinical Science I	8	240	2	6	12	120	3	123	117						**8**						
34	Clinical and Professional skills VII	Clinical and Professional skills VI	2	60		2		30	2	32	28							**2**					
35	Research Skills II	Research Skills I	5	150	1	3		60	3	63	87							**5**					
							96	**2205**															
36	Internal Medicine I	Physical diagnosis II, Clinical Diagnosis II, Georgian Language III	7	210	10	81		91	3	94	116							**7**					
37	Neurology	Physical diagnosis II, Clinical Diagnosis II, Georgian Language III	6	180	8	78		88	3	91	89							**6**					

38	Pediatrics I	Physical diagnosis II, Clinical Diagnosis II, Georgian Language III	5	150	8	72		80	3	83	67							**5**					
39	Surgery I	Physical diagnosis II, Clinical Diagnosis II, Georgian Language III	5	150	8	64		72	3	75	60							**5**					
40	Clinical and Professional skills VIII	Clinical and Professional skills VII	2	60		2		30	2	32	28								**2**				
41	Health and Society IV	Health and Society III	4	120	1	2		45	3	48	52								**4**				
42	Internal Medicine II	Internal Medicine I	6	180	8	78		88	3	91	89								**6**				
43	Dermatology	Physical diagnosis II, Clinical Diagnosis II	3	90	6	43		49	3	51	38								**3**				
44	Infectious Diseases I	Physical diagnosis II, Clinical Diagnosis II	4	120	8	42		50	3	53	67								**4**				
45	Ophthalmology	Physical diagnosis II, Surgery I	3	90	6	43		49	3	52	38								**3**				
46	Otorhinolaryngology	Physical diagnosis II, Surgery I	3	90	6	43		49	3	52	38								**3**				
47	Maxillofacial surgery	Physical diagnosis II, Surgery I	2	60	4	24		28	3	31	29								**2**				
48	Clinical and Professional skills IX	Clinical and Professional skills VIII	2	60		2		30	2	32	28									**2**			
49	Research Skills III	Research Skills II	2	60	1	1		30	2	32	28									**2**			

50	Internal Medicine III	Internal Medicine II	6	180	8	78		88	3	91	89									**6**			
51	Pediatrics II	Pediatrics I	3	75	4	30		34	3	37	38									**3**			
52	Psychiatry	Neurology	4	120	6	48		54	3	57	63									**4**			
53	Leadership	Communication skills	2	60	1	1		30	2	32	28									**2**			
54	Urology	Surgery I	3	90	4	44		48	3	50	40									**3**			
55	Traumatology	Surgery I	3	90	4	44		48	3	50	40									**3**			
56	Obstetrics & Gynecology I	Surgery I	5	150	8	72		80	3	83	67									**5**			
57	Clinical and Professional skills X	Clinical and Professional skills IX	2	60		2		30	2	32	28										**2**		
58	Health and Society V	Health and Society IV	5	150	1	2		45	3	48	74										**5**		
59	Internal Medicine IV	Internal Medicine III	5	150	8	72		80	3	83	67										**5**		
60	Infectious Diseases II	Infectious Diseases I	5	150	8	72		80	3	83	67										**5**		
61	Forensic Medicine	Basics of Clinical Science II	4	120	4	38		42	2	44	56										**4**		
62	Obstetrics & Gynecology II	Obstetrics & Gynecology I	5	150	8	72		80	3	83	67										**5**		
63	Clinical and Professional skills XI	Clinical and Professional skills X	4	120		60		60	3	63	57											**4**	
64	Research Skills IV	Research Skills III	5	150	1	2		45	3	48	74											**5**	
65	Family Medicine I	Internal Medicine IV, Neurology, Infectious diseases II	3	90	4	44		48	3	50	40											**3**	
66	Geriatrics and Palliative Care	Internal Medicine IV, Neurology	4	120	8	88		96	3	59	61											**4**	

67	Rehabilitation and Sport Medicine	Traumatology, Neurology	4	120	6	80		86	3	57	63											4	
68	Neurosurgery	Surgery I, Neurology	2	60	4	30		34	3	37	23											2	
69	Anesthesiology & Intensive Care	Surgery I, Neurology	4	120	8	48		56	3	59	61											4	
70	Clinical and Professional skills XII	Clinical and Professional skills XI	4	120		60		60	3	63	57												4
71	Internal Medicine V	Internal Medicine IV	6	180	8	118		120	3	91	89												5
72	Family Medicine II	Family Medicine I	8	180		88		88	3	91	89												8
72	Emergency Medicine	Internal Medicine IV, Traumatology, Anesthesiology & Intensive Care	5	150	8	112		120	3	83	67												6
73	Personalized Medicine	Internal Medicine IV	2	60	1	1		30	2	32	28												2
74	Surgery II	Surgery I	5	150	8	72		80	3	83	67												5
2441																							
Elective Couses												**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**IX**	**X**	**XI**	**XII**	
5	IT Technologies	N/A	2	60		2		30	2	32	28	**2**											
1	English for Healthcare Professionals I	N/A	2	60		2		30	2	32	28												
2	English for Healthcare Professionals II	English for Healthcare Professionals I	2	60		2		30	2	32	28		**2**										
3	History of Medicine	N/A	2	60	1	1		30	2	32	28												
1	Philosophy		2	60	1	1		30	2	32	28			**2**									
2	Sociology		2	60	1	1		30	2	32	28												

4	Cancer Biology	Body structure IV, Body function III, Neuroscience, Immunology	2	60	1	1		30	2	32	28					**2**							
5	Health Systems and Policies	N/A	2	60	1	1		30	2	32	28												
6	Parazitology	Health and Defense I	2	60	1	1		30	2	32	28						**2**						
7	Drug Abuse	Basic of Clinical Science I	2	60	1	1		30	2	32	28												
8	Nutrition	Internal Medicine II	3	75	1	1		30	2	32	43								**3**				
9	Enzymology	Internal Medicine II	3	75	1	1		30	2	32	43												
10	Child Surgery	Surgery I	4	120	6	42		48	3	51	49										**4**		
11	Pediatric Neurology	Neurology	4	120	6	42		48	3	51	49												
12	Sexual Medicine	Introduction to Psychology	4	120	6	42		48	3	51	49											**4**	
13	Clinical Psychology	Psychiatry, Introduction to Psychology	4	120	6	42		48	3	51	49												

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