IBSU

MEDICAL DOCTOR PROGRAMME CATALOGUE

CATALOGUE OF MEDICAL DOCTOR PROGRAMME

(English Languages)

2023

Contents

About International Black Sea University

The International Black Sea University (IBSU) has been engaged in educational and scientific activities since 1995. The university is the first English-language educational institution in Georgia, which provides programs in both English and Georgian languages at all three levels of education.

More than 200 local and invited professors from different countries provide a high level of education at the university. International Black Sea University offers many opportunities to students. Namely: diverse public lectures, discussions with experts in various fields, participation in local and international conferences, mock trials, access to more than 25,000 books in the library and constantly updated electronic literature, involvement in more than 30 different clubs; Participation in various sports tournaments, opportunity of training in the gym, basketball court, open and closed stadiums, excursions, picnics, hiking and other extracurricular activities.

More than 4,500 graduates of the International Black Sea University hold an high education diploma issued by the university. IBSU students actively benefit from exchange programs. The university has signed 70 memorandums with educational institutions of 24 countries. IBSU is involved in Erasmus+ and DAAD projects.

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Medical Doctor

Name of the Educational Program: Medical Doctor

Awarded Qualification: Medical Doctor/MD

Credit Value of the Programme: 360 ESET Credit

Language of Education: English

Programme Admission Precondition

- a relevant document (certificate) confirming complete general education (confirmed by the state) or a document equivalent to it;
- a document confirming the passing of the unified national exams in accordance with the rules approved by the Ministry of Education and Science of Georgia
- Overcoming the minimum competence at the unified national exams, except for the English language exam. The minimum level of competence in English is 80%.
- Knowledge of the English language at B2 level - presentation of a certificate confirming general European language skills at B2 level (IELTS, TOEFL, Cambridge English, UNIcert®, EnglishScore, etc.). In the absence of such, the university checks the level of knowledge of the English language according to the regulations developed by it and the requirements of the applicable national sectoral characteristics of pre-diploma medical education).

In the cases provided for by the legislation, enrollment is possible in accordance with the rules established by the legislation, without passing the unified national exams. Conditions for admission to the program for citizens of foreign countries and stateless persons without passing the unified national exams are the following:

a) for citizens of foreign countries and stateless persons who received full general education or its equivalent in a foreign country, or for citizens of foreign countries and stateless persons (except those who are simultaneously citizens of Georgia) who received full general education or its equivalent in Georgia through foreign or international programs recognized by Georgia;
b) for Georgian citizens who received full general education or its equivalent in a foreign country and completed the last two years of full general education in a foreign country;
c) for citizens of foreign countries (except for students participating in a joint higher education program and students participating in an exchange education program), who study/studied and received credits/qualifications in a foreign country in a higher education institution recognized in accordance with the legislation of this country;
d) for Georgian citizens (except students participating in a joint higher education program and students participating in an exchange education program) who live/lived, study/studied, and received credits/qualification in a foreign country at a higher education institution recognized under Georgian law for at least 75 days during one of the semesters in an educational institution.

Also, the following are prerequisites for admission of an applicant to a certified doctor's educational program without the unified national exams in the manner established by legislation and within the established deadlines:
Knowledge of English language at B2 level - providing a certificate (IELTS, TOEFL, Cambridge English, UNIcert®, EnglishScore, etc.) confirming general European language skills at B2 level. In the absence of such, the university checks the level of knowledge of the English language through a language proficiency test, which includes: listening, comprehension and analysis of the read text, speaking and corresponds to the requirements of the current national pre-diploma medical education.
Or for entrants who are citizens of a foreign country with an English-language education, upon presenting a relevant document (e.g. school diploma, certificate, etc.).
It is possible to enroll in the program on a mobility basis in accordance with the law.
In order to provide information about the programs operating in the university, International Black Sea University systematically holds meetings with applicants from all over the country and with international applicants as needed. During the meetings, entrants are provided with detailed information about the school's programs (in addition to oral communication, relevant information brochures are also distributed to them).
The program and the prerequisites for enrolling in the program are posted on the university's website and are available to all interested persons. Information is also disseminated through social networks, and interested candidates are consulted by telephone and e-mail.

Programme Learning Outcomes

The learning outcomes of the Program of Medical Doctor are systematized on the basis of the National Qualifications Framework (NQF) evaluation criteria and the integration of competencies in the field of medicine, dividing 3 NQF domains (Knowledge and Understanding, Skills, and Responsibility and Autonomy) into 14 outcomes aligned with 14 competencies in the Sectoral Benchmarks of High Medical Education of the National Center for Educational Quality Enhancement.

Knowledge and Understanding

Learning Outcome 1: (K1) In-depth and systematic knowledge and understanding of the basic principles of biomedical, behavioral, social, clinical sciences and of the medical field

Program Graduate:

1.1. Demonstrates deep and systematic knowledge of biomedical sciences, critical thinking, which creates the basis for innovation and the development of original ideas.
1.2. Examines and compares the structural organization characteristic of normal and pathological processes, the mechanisms of functional changes and metabolism - at the molecular, cellular, tissue, organ and system levels.
1.3. Discusses the function, components and characteristics of the immune system. Compares innate and acquired, humoral and cellular immunity. Analyzes the mechanisms of regulation and control of immune response disorders.

1.4. Evaluates the correlation between the development of pathological changes and mechanisms and the clinical manifestations of diseases when considering genetic (hereditary) diseases, inflammation, metaplasia, infection, autoimmune processes.
1.5. Discusses social and behavioral factors, explains their role in the development of pathological processes
1.6. Demonstrates in-depth and systematic knowledge of clinical medicine and integration with basic subjects. Describes the basic nosologies of internal medicine, surgery and their subspecialties, as well as obstetrics-gynecology, pediatrics, psychiatry. Classifies them, discusses their etiology, discusses their pathogenesis, compares their symptoms, diagnostic methods, and differentiates them.
1.7. Demonstrates knowledge of different methods of disease management and compares their area of use, indications, benefits and effectiveness.
1.8. Describes and evaluates the mechanisms of drug effects, their pharmacokinetics and pharmacodynamics, indications, contraindications, side effects and principles of their dosage regulation.
1.9. Evaluates the importance of the public health system and the role of the physician in the cost-effective management of individual and population health using this system.
1.10. Reveals deep knowledge of ethical and legal principles of medicine and patient rights.

Skills

Learning Outcome 2: (Competence S1) - Patient consultation

Program Graduate:

2.1. In the process of consulting a patient of any age, implements the proper structuring, proper communication and effective management of the patient appointment.
2.2. Obtains anamnesis from the patient as well as from other sources (with the patient's consent).
2.3. Conducts physical examination of patients of any age in compliance with the standard of consultation.
2.4. Assesses the patient's psycho-emotional state and determines the need for appropriate advice or specialist consultation. Expresses patient support.
2.5. Makes decisions based on theoretical knowledge and clinical thinking and provides reasonable recommendations to the patient.

Learning Outcome 3 (Competence S2): Assess clinical case, schedule examinations, differential diagnosis, discuss disease management plan.

Program Graduate:

3.1. Recognizes and evaluates the complexity of the clinical case manifestation of the disease when assessing a patient of any age.
3.2. Conducts the optimal set of examinations based on theoretical knowledge and patient data and interprets the results of the examinations.
3.3. Conducts differential diagnosis based on critical analysis of clinical, instrumental and laboratory data and determines the diagnosis of the patient's major and concomitant diseases.
3.4. Introduces treatment tactics, to the patient and his / her caregivers; seeks agreement, explains and advises.
3.5. Takes care of the terminal patient and his/her family
3.6. Demonstrates the management of chronic disease.

Learning Outcome 4 (Competence S3): Emergency Medical Assistance (First Aid and Resuscitation)

The program graduate demonstrates the following skills:

4.1. Identifying and evaluating an emergency medical condition;

4.2. Basic first aid in different age groups (infants, children, the elderly);

4.3. Carrying out basic life-sustaining and cardiopulmonary resuscitation measures in accordance with the guidelines;

4.4. Carrying out extended life-saving measures in accordance with the guidelines;

4.5. Carrying out emergency assistance measures during injuries.

Learning Outcome 5 (Competence S4): Medication Selection and Prescription

Program Graduate:

5.1. Selects drugs and doses by taking into account the clinical context

5.2. Prescribes medications clearly and accurately

5.3. Analyzes the relationship between drug benefit and potential side effects risk for the patient

5.4. Considers the interaction and compatibility of different medications when prescribing treatment to a particular patient

5.5. Performs treatment of pain and distress.

Learning Outcome 6 (Competence S5): Implementation of practical procedures

Program Graduate:

Demonstrates practical diagnostic and treatment procedures:

6.1. Vital signs detection: pulse, breathing, and temperature (of a patient)

6.2. Blood pressure readings (of a patient)

6.3. Determination of saturation (of a patient)

6.4. Peripheral venipuncture (on a simulator)

6.5. Peripheral vein catheterization (on a simulator)

6.6. Administering medication into a vein and using an infusion device (on a simulator)

6.7. Injection under the skin and into the muscle (on a simulator)

6.8. Oxygen therapy (of a patient)

6.9. Patient transportation and treatment (simulated patient)

6.10. Putting a stitch (on a simulator)

6.11. Wound dressing (simulated patient)

6.12. Bladder catheterization (on a simulator)

6.13. Taking an electrocardiogram (on a patient)

6.14. Conducting functional tests of the respiratory system

6.15. Use of inhalation medications

6.16. Washing hand

6.17. Swabbing the nose and throat (on the simulator)

6.18. Use and disposal of personal protective equipment (gloves, coveralls, goggles, shield, mask, respirator, boots).

Learning Outcome 7 (Competence S6): Implementing effective communication in a medical context

Program Graduate:

7.1. Conducts effective verbal or written communication with the patient, relatives, colleagues, and others (regardless of their social, cultural, religious, or ethnic background), in the context and scope of comprehensive medical care, physician duties, and applicable regulations;

7.2. Able to communicate with relatives (and / or caregivers) - to provide explanation / clarification of the diagnosis and / or to provide explanations / advice / recommendations for care / treatment / prevention (including finding using information technology).

7.3. Able to communicate with people with disabilities and / or assistants;

7.4. Provides written communication (including medical records and electronic medical histories) with healthcare, law enforcement and the media;

7.5. Able to communicate bad news messages properly and / or communicate in the event of a conflict.

Learning Outcome 8 (Competence S7): Application of ethical and legal principles in medical practice.

Program Graduate:

8.1. Expresses respect for the dignity and rights of the patient, including the right to participate in decision-making about medical care.

8.2. Receives valid informed consent from the patient in accordance with the law when providing medical services and makes an appropriate entry in the documentation;

8.3. Expresses support for the patient and respect for his / her rights; Adheres to moral and ethical norms in relation to the patient;

8.4. Maintains confidentiality about the patient's condition;

8.5. If necessary, requests an autopsy and / or issues a death certificate (in cases provided by the legislation of Georgia).

8.6. Uses Georgian and international legislation in the treatment of the patient;

8.7. Manages medical activities in a multicultural society.

Learning Outcome 9 (Competence S8): Consideration, identification and evaluation of the psychological and social aspects of the patient's illness.

Program Graduate:

9.1. Assess the patient's psycho-emotional status and the psychological and social factors of disease manifestation and impact on the patient.

9.2. Identifies disease-related stress;

9.3. Determines the patient's possible dependence on alcohol, drug addiction, other possible forms of addiction (gambling, Internet addiction).

Learning Outcome 10 (Competence S9): Applying Evidence-Based Principles, Skills, and Knowledge

Program Graduate:

10.1. Able to identify a problem, ask relevant questions about the issue, and effectively find answers to questions in the scientific literature.

10.2. Carries out a critical analysis of the medical literature, evaluates the quality of the evidence presented in the articles, and makes proper use of convincing data in decision-making in practice - for maximum benefit to the patient;

10.3. Discusses the evidence used in clinical decision making with colleagues and other health professionals, thereby promoting the dissemination of evidence-based principles, knowledge and skills and their widespread introduction into the medical community.

Learning Outcome 11: (Competence S10) Effective use of information and information technology in a medical context

Program Graduate:

11.1. Effectively uses modern information technologies in practical activities;

11.2. Properly keeps and maintains complete clinical records;

11.3. Carries out specific information resources, retains them and then uses them in practical activities

11.4. Maintains personal records (portfolio) of learning, practical skills and professional activities.

Learning Outcome 12 (Competence S11). Application of scientific principles, methods and knowledge of biomedicine in medical practice and research.

Program Graduate:

12.1. Demonstrates knowledge of scientific research methodology, scientific code and ethical principles.

12.2. Demonstrates the ability to select research design, detailed planning, process results, and formulate conclusions.

12.3. Finds and uses in recent practice the latest advances in evidence-based biomedical research.

12.4. Prepares an abstract / review based on the critical analysis of the field scientific literature.

12.5. Presents the results of its research, arguments and conclusions to both the academic and professional community, in the form of a proper presentation, adhering to the principles of academic good faith.

Learning Outcome 13 (Competence S12). Implement health promotion measures, engage in public health issues, work effectively in the health care system.

Program Graduate:

13.1. Actively engages in the discussion of public health issues and in the process of improving the health of the community and the population.

13.2. Advocates for increasing the efficiency of the health care system by taking disease prevention measures.

13.3. Participates in health promotion activities at both individual and population level.

13.4. Understands the importance of preventing the spread of infections and advocates for these measures to enhance public health safety

13.5. Understands and evaluates one's own health condition and possible problems, including those related to professional duties.

13.6. Plans and implements measures to improve their own health - through the introduction of a healthy lifestyle and the elimination of harmful habits, and by introducing role models – and thereby enhances public awareness.

Learning Outcome 14 (Competence RA13). Values and professionalism

Program Graduate:

14.1. Self-assesses his/her own level of knowledge and selects priorities, makes changes to the individual curriculum and uses learning resources according to adapted plan for moving to the next level of study.

14.2. Confirms the high standard of personal values and professionalism necessary for a doctor through personal qualities and activities: impartiality, honesty, fairness, creativity, sociability, collegiality, initiative, altruism, empathy (compassion).
14.3. Able to display expert qualities - in terms of analysis, synthesis, continuous learning, application of scientific research knowledge in practice, mentoring.
14.4. Demonstrates the ability to plan and organize time, prioritize, meet deadlines, and perform agreed-upon work at a high level.
14.5. Demonstrates the following skills necessary for teamwork: responsibility, critical and self-critical attitude, finding a way out of an uncertain situation, adapting to a new situation, creativity, working independently, understanding one's own capabilities and asking for help in a timely manner.
14.6. Able to develop and effectively demonstrate the following qualities of a team leader: Adequate assessment of team members' capabilities, distribution of functions, work planning, activity coordination, feedback, prevention / management of conflict and force majeure situations.
14.7. Expresses the skills characteristic of multiculturalism: knowledge of a second language, respect for different cultures, willingness to work in an international environment, extra-professional knowledge.

Methods of Attainment of Learning Outcomes

Basic forms of teaching / learning:

No particular issue of medicine can be learned with just one method. The teacher has to use different methods, combine and sometimes – adapt; the methods in the teaching process complement each other, which is reflected in the syllabi.

A lecture is a creative process in which a lecturer and a student participate simultaneously. The main goal of the lecture is to understand the idea of the concepts of the subject/course to be studied, which implies a creative and active perception of the presented material. At the same time, attention should be paid to the main concepts, explanations, indications, assumptions of the material to be transmitted. A critical analysis of key issues, facts and ideas is needed. The lecture should provide scientific and logically consistent knowledge of the main provisions of the subject without overloading with unnecessary details. Therefore, it must be logically complete. However, facts, examples, diagrams, drawings, experiments and other visuals should serve to explain the idea of the lecture. A lecture is interactive when it takes the form of a dialogue and engages students in the process of discussing theoretical material; Lectures and presentations are held within the course. Lectures are conducted using demonstration materials (atlases, posters, preparations, tabulations, video presentations, etc.) and modern computer technology.

The material explained and listened to in the lecture is formed as a whole system of knowledge by the independent work of the student. The student should have an interest in books and other sources of information and a desire to study issues independently, which will stimulate independent thinking, analysis, and inference.

The theoretical material presented at the lecture is well understood through seminars, laboratory and practical lessons.

Practical lessons - Understanding the topics and issues discussed in the lecture, deeper elaboration, atlases, posters, demonstration materials, interactive work with students on practical tasks, presentation of the assignment given by the lecturer and the results of independent work for evaluation and feedback.

Laboratory training involves the following activities: Practical introduction to laboratory research, setting up trials, viewing / identifying slides, including microscopes, and video and computer programs, linking laboratory test results to the clinical context, and demonstrating these practical skills.
Seminar - Deepening the topics listened to at the lecture. At the direction of the head professor or head teacher of the seminar, the student or group of students will find and process additional information, prepare a presentation, write an essay / abstract, etc. Reports will be heard at the seminar, clinical cases will be discussed, discussions will be held, conclusions will be made. The workshop facilitator coordinates the purposeful conduct of the discussion and assesses the content and formality of the presentations and discussion, the processing and critical analysis of the literature found, the ability to reason, the use of evidence in the discussion, and the principles of academic ethics. Thus the seminar combines teaching and assessment methods.
Discussion - the joint exchange of ideas between a lecturer and students, or students - in order to establish and deepen the latter's thinking, learning, problem assessment and problem-solving skills, understanding, knowledge value. Participants present different points of view, respond to the ideas and opinions of other participants in the discussion with respect and adherence to ethical norms, re-evaluate their opinions in the light of new data, which contributes to the formation and production of knowledge, understanding, interpretation of issues. Discussions can take place between small group members or within the whole class - led by both a lecturer and a student.
Debate - requires students to work individually and in teams on critical issues, logical reasoning, active listening to different opinions, differentiation of subjective and objective information, reasoned answers to rational questions, integration of relevant information, development of empathy and evidence-based self-evidence.
Analysis - Ability to study the problem / thematic issue in depth; It helps to identify specific details, break down material into components, identify logical connections between problem components, or, conversely, discrepancies, define organizational principles. The program includes a discussion around the clinical case - analysis of the results of physical, instrumental and laboratory tests, differential diagnosis, development of a treatment plan and analysis of success or failure, etc.
Synthesis - a continuation of some analysis and an inverted process - involves the formation of an idea of the whole by bringing together individual issues, developing the ability to see the problem as "whole". In terms of learning outcomes in this case there is an emphasis on a creative approach that helps to form a new vision, to make a differential diagnosis, to develop a treatment plan.
Brainstorming - Students are required to express their thoughts and ideas without thinking, without prior preparation, then their ideas and opinions are grouped, reviewed and studied. Promotes the development of fast, creative thinking and analytical skills.
Clinical Teaching / Work - Transforming theoretical knowledge gained in an academic environment into practical habits and mastering clinical skills, which is a necessary step in preparation for future medical professional activities. Implemented in a clinic or clinical skills center / laboratory. Working in a clinic is a higher level of practical training, because it involves transferring the skills developed in the Clinical Skills Center to a real work environment, where communication takes place not only with real patients, but also with different components of the clinical space (departments, laboratories, research-diagnostic offices ...) (Doctors, nurses, laboratory technicians, researchers), which enriches the student experience and helps to master a wide variety of competencies.
Role play - involves students' role as patient and physician, developing practical / clinical skills, demonstration, assessment / self-assessment. Unlike other methods of clinical work, it can be performed in an auditorium.
Study of Clinical Habits on Simulators - Training and refining clinical skills in the Clinical Skills Laboratory / Center using simulators (mechanical, automated or virtual simulators / mannequins) and / or their integrated systems. Through such training, a number of diagnostic or therapeutic procedures can be

replicated and clinical training can be expanded / intensified to improve practical and analytical skills. In parallel with the simulators, the Clinical Skills Laboratory can use standardized patient reviews, giving the student the opportunity to develop and refine a standardized scheme of patient examination and medical thinking of different complexity. Both simulators and standardized patients are actively used to objectively evaluate learning outcomes.

Bedside Teaching

Doctor-student-patient interaction in the clinic, which is conducted with the patient's consent at his/her bedside. A small group of students directly observe the patient's examination, data evaluation, examination plan, interaction with nursing staff, differential diagnosis, communication messages with the patient's relatives, prescribing and general clinical management of the patient. -Develop habits. Practical, interactive learning of clinical, communication, and ethical patient examination skills takes place during the patient examination process, with appropriate emphasis on prioritizing patient interests and ethical approaches. Used to gather as much information as possible from the patient and focuses on all the sensations of the student - hearing (anamnesis, complaints), sight, touch, perception, smell. Records are also made. At the patient's bedside, certain opinions and views may be exchanged, but in a way that protects the best interests of the patient and does not cause him or her psychological harm. This method is important for establishing clinical thinking, doctor tact and professionalism.

Presentation - presentation of the knowledge and competencies acquired by the student during the course from both group / individual teaching, as well as for evaluation. Can be submitted individually or by a group of students. The aim of the work is to find, analyze, generalize information on the chosen topic, and - in an optimal presentation format and in a predetermined limited time - to present. During the evaluation, the processing / comprehension of the material, the format of the presentation, the observance of the regulations, the interest of the audience, the formation of their own opinions, the answering of questions related to the topic are evaluated separately. The topic of the presentation is selected in advance, the lecturer can give the students a general framework of presentation, and a reference to information resources, but the student (s) independently prepare the presentation, which can be on both theoretical and clinical topics. (For example - case resolution). It is desirable to include a patient (real or virtual) demonstration.

Problem-based learning (PBL) - a learning method that uses the problem as an initial stage in the process of acquiring new knowledge and integration - the method is used in the basic / preclinical stage of learning. The student (or group of students) conducts an independent assessment of the case - identifying existing problems and prioritizing. It then searches for information to solve the problem from various basic or clinical disciplines, re-critically analyzes the problem and innovates the synthesis - to develop differential diagnosis or treatment methods. This method promotes interdisciplinary integration between theoretical / basic and clinical subjects, as well as develops / improves the ability to teach independently, the practical application of a student-centered approach and student interaction, analysis, synthesis, clinical reasoning, and to some extent mental balance. Problem-based learning also includes the scope and quality of application of collaborative learning and hands-on learning.

Flipped learning - a teaching method in which a group is first given a topic and instructions in the form of homework, and after its individual preparation, a more interactive discussion takes place in the classroom, where the lecturer acts as a moderator of discussion and discussion, while students present their visions, concepts and Discussion skills. Implies a much higher level of group readiness for the moment of interactive discussion of the learning topic. Can be used successfully and is especially important in conjunction with online training.

Team Based (TBL- Team Based (Collaborative) Learning) - Teaching with this method involves dividing students into small (5-6 students) groups and, as in the case of "Flipped" lecture / study, giving them assignments in advance. Group members work on the issue individually and share it with the rest of the group. Depending on the set task, it is possible to redistribute functions among members during the

group work process. Their knowledge of the course is assessed (both in groups and individually) through pre- and post-tests. This strategy ensures maximum involvement of all students in the learning process.

Cooperative learning - is a learning strategy in which each member of the group is obliged not only to study, but also to help his teammate to study the subject better. Each group member works on the problem until all of them have mastered the issue.

E-learning - means learning through the Internet and multimedia. It includes all components of the learning process (objectives, content, methods, tools, etc.) that are implemented through specific tools. There are three types of e-learning:

Attendance, when the teaching process takes place within the contact hours of teachers and students, and the transfer of teaching materials is carried out through an electronic course (mainly - using the intranet);

Distance learning involves conducting the learning process without the physical presence of the professor. The training course is conducted from beginning to end remotely, in electronic format; Via the Internet or Intranet - in synchronous (online) or asynchronous (offline) mode. Teachers and students are far apart in space and may even in time - in the asynchronous model) and share lectures, presentations, homework, case studies or quizzes. The program uses various popular commercial or free online learning platforms (Zoom, Microsoft Teams, Doodle, Google Meet). If hybrid training is needed, online modules and programs for managing clinical case simulation review can be used.

Hybrid (attendance / distance) - The main part of the training is done remotely, while a small part is done within the contact hours.

Case-based Learning (CBL)- an interactive method of teaching, which belongs to the method of problem-based learning. The method develops the student analytical thinking, critical thinking and decision-making skills independently. The lecturer divides the roles in the group with the students, discusses specific cases, the students study the issue thoroughly and thoroughly and present their conclusion. A clinical case is reviewed, patient anamnesis, diagnosis based on examination results, treatment principles are determined, individual and group discussion of students is encouraged to defend alternative plan, examination plan and treatment tactics in order to convince reasoned reasoning and persuasion.

Case-based Clinical Reasoning CBCR, unlike conventional case analysis, assigns a much more active and independent role to students, especially the Peer Teacher, and the lecturer to the process after providing different scales of information and case distribution. Acts as an observer / consultant. Both the process and the assessment of the case studies by the students will be conducted entirely by an "equal teacher". This role is assigned to different students in different sessions. Active independent process leadership provides increased potential for student activation, engagement in clinical reasoning and overall, brainstorming, evidence-based knowledge gathering and leadership skills

Review of scientific and practical clinical news from academic journal articles (Journal Club) - Systematic meetings of small or sometimes extended groups of students to discuss and critically analyze the news in academic articles, and then to submit reports / presentations.

Research paper - in-depth analysis of a specific topic / issue. Requires additional literature to be read, processed and submitted in writing. Allows knowledge to be deepened within a specific direction / course, to better understand, to develop opportunities and attitudes, and to integrate knowledge at the system level. Gives the student the opportunity to clearly present his / her conclusions in written and oral form, to discuss it, to present his / her knowledge and the arguments on the basis of which the course paper was developed; Understand the ethical aspects of research.

Consultation - the student discusses and plans research with the course or research supervisor and makes some recommendations e.g., Useful resources and / or methodologies to effectively fill gaps in learning and knowledge, or improve the formal side of the work plan, methodology, literature review, materials retrieval, statistical methods, content, analysis, and presentation, not fundamentally modified by the supervisor. Clarify the outline, make hints and make recommendations.

Student Knowledge Evaluation System

A minimum competency threshold of 51% is set for students in both midterm and final assessment forms. A student must score a total of 51% of 70 points in the midterms in order to pass the final exam (multiple-choice test + practical skills demonstration - in body organ system modules, written situational tests - public health, test + OSCE - step-by-step examination in body systems, test + OSCE - clinical and communication skills, clinical subjects, etc.).

A student is considered to have passed the final exam if he/she gets 51% or more out of 30 points. In case of getting a score of less than 51% in the final assessment, the subject is not considered as passed.

The grading system allows:
Five types of positive grades:

a) (A) Excellent – 91-100 points;
b) (B)Very good – 81-90 points;
c) (C) Good - 71-80 points;
d) (D) Satisfactory - 61-70 points;
e) (E) Enough - 51-60 points;

Two types of negative grades:

a) (FX) Fail – 41-50 points, meaning that a student requires some more work before passing and is given a chance to sit an additional examination after independent work;
b) (F) Fail – 40 points and less, meaning that the work of a student isn't acceptable and he/she has to study the subject anew.

Students are awarded credits on the basis of the final evaluation comprising the total of the interim and the final scores.
The student's learning outcomes include the interim and final evaluations which are allocated relative proportions out of the total score (100 points) and a minimum competence level is fixed. Namely, out of the 100 points, the interim results are allocated 70 points, while the Final results – 30 points. In both of the components (interim and the final) the minimum competency barrier to be reached is fixed. The interim evaluation includes grading components the total of which is 70 points. For each learning component evaluation is based on the pre-determined learning goals, task-oriented clear criteria and the learning rubrics drawn on their basis. In the interim results the student has to accumulate at least 51% of the 70 points to be allowed to take the Final Exam. The student's Final Examination is deemed Passed, if he/she gets 51% of the total 30 points.
In case the student fails to overcome the minimum competency barrier of the Final Exam, he/she is allowed to re-take the examination. The student shall re-take the Final Examination within the period prescribe by the academic calendar no later than 5 days after announcement of the results of the Final Exam.
In case the student has 0-50 points in the Final Grade or fails to overcome the minimum competency barrier in any form of the evaluation (Midterm/Final Exams), he/she shall be given a Grade of "F-0".

Evaluation methods:

Oral exam - descriptive and explanatory presentation of the mastered thematic study material (disease etiopathogenesis, symptomatology, clinical, diagnostic, therapeutic and other nuances) or using various visuals - schematic, tabular, formulas - as well as - answering questions verbally. An oral exam may

involve case review, analysis, and discussion, and has some advantages for assessing communication, interpersonal skills, decision-making (decisiveness), and critical thinking.

Written Test / Quiz - A written work test of knowledge and ability to integrate theoretical material within a past subject, usually in the form of a multiple choice test (MCQ), where short or phased clinical cases may also be used. Helps to recall past material and correlate it with new material.

Demonstration of practical skills (on simulators/manequins, patient or standardized patient): patient survey, examination and recording, examination by different methods, reading and interpretation of examination results, formation of a group of relevant diseases for differential diagnosis based on corrective diagnosis Develop, implement treatment procedures, compile epicrisis.

Feedback - The lecturer provides the student with information about his / her knowledge in a form that is intended to change his / her thinking and behavior in such a way as to improve the learning process and learning outcome. Instead of mathematical grading, feedback is a qualitative, formative assessment and the basis for the learner to detect errors and deficiencies in their own knowledge, to identify the reasons why they have some backwardness, to better see the learning objectives and tasks, to improve the quality of their performance. Timely, frequent, specific, explanatory, constructive feedback is an effective opportunity to improve student learning outcomes and can also be used to evaluate lecturer performance.

Objective Structured Clinical Examination (OSCE) - During the OSCE, students demonstrate clinical skills using simulators or patient role models (standardized or simulated patients). In midterm evaluations, the so-called Mini-OSCE (where the number of stations can be 5-6), and in the final exam - 11-12 stations.

Similar method for Practical Skills – **Objective Structured Practical Exam (OSPE)** is used for laboratory and/or instrumental investigations in preclinical sciences, likewise physiology, biochemistry or pathology. Number of stations are usually less at OSPE (6).

Assessment in the Workplace (Clinical) Environment - WPBA (Work Place Based Assessment) - mainly used in the clinical training graduation phase. These methods are:

- Direct Observation of Procedural Skills (DOPS)
- Case Based Discussion (CBD)
- Mini Clinical Evaluation Exercise - (MiniCEX)
- 360°-rating - Versatile rating

Case-Based Discussion - A structural method of formative assessment. A student's competencies (usually 2-4: clinical decision-making, diagnosis and treatment skills) are assessed by resolving a specific case and having a discussion in a calm environment. The student summarizes the case, identifies the main questions / problems, expresses his / her opinions on the ways to solve them, and focuses on the nuances that are particularly difficult. Lecturer questions / assessments relate to specific wording (e.g., how the question was asked), evidence (on which specific decisions were based), what was deemed necessary, and what was omitted. Each competency evaluates what was done well and what was not.

Mini Clinical Assessment Exercise (MiniCEX) - A method of observing relatively short interactions between a student and a patient in the workplace (no more than 15 minutes) to assess a student's clinical and communication skills, clinical decision, clinical management, patient attitudes / behaviors and implementation of standards) and organization / efficiency.

Portfolio - Long-term evaluation of student activities. The portfolio should include student-generated documents / evidence that reflect student activity in dynamics - at different levels of learning / teaching (e.g., attending patient examinations / treatments, presentations, seminars, conferences, independent learning, social activism, personal development plan, etc.). as well as the student's self-assessment, which is a measure of his/her self-criticism. The lecturer evaluates the activities and documentation, interacts with the student in case of differences in the assessments and makes both summative (points) and formative (verbal) assessments of the student. Portfolio is especially important in the rotational phase of clinical training. An advanced and convenient form of portfolio is the electronic portfolio (ePortfolio).

Field of Employment

A graduate of the "Medical Doctor" Program has the right:
a) to undergo a professional development program in residency (or an equivalent professional program abroad, recognized by the legislation of that country) and after successfully passing the unified state certification exam, be granted the right to carry out independent professional activities.
b) to engage in research or medical-educational process in the theoretical fields of medicine or in the field of healthcare, which does not include independent medical activity.
c) to continue his studies at the third level of higher education - doctorate or
d) to work as a junior doctor (under the guidance and instructions of a person with the right to independent medical activity).