

Teaching University
„BAU International University, Batumi“



Medical Faculty

One-cycle Higher Educational Program
Medicine

QUALIFICATION/ACADEMIC DEGREE -- Medical Doctor

Program Volume: ***360 ECTS credits***
Teaching Language – English

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Prerequisites / Entry standards

One-cycle educational program of medicine can admit:

- Citizen of Georgia with secondary education diploma on the basis of the United National examination results.
- A foreign citizen, stateless person, who received full general education of its equivalent in a foreign country, as well as the citizen of Georgia who received full general education of its equivalent in a foreign country and the last 2 years of the general education he studies in foreign county without passing United National Examination, since his foreign education document is recognized by National Center for Educational Quality Enhancement and he is awarded with right to education by the Minister of Education and Sciences of Georgia, in accordance with the legislation.

The interested person (Georgian citizen) must present high score of passed results of English Language on National examination ($\geq 80\%$). As for foreign citizens, they must present international certificate of the English language knowledge B2 level or or pass a test organized by the University. In case of failure, the university offers 6-months or 1-year language training course. After completion of the course and successful exam, the graduate becomes a student of “BAU International University, Batumi”.

Aim and Actuality of the program

Educational program aims to train a certified doctor of scientific knowledge and innovative technology vision, liberal values, deep theoretical knowledge and clinical skills in compliance with international standards. Moreover, it is designed to establish professional ethics, research and permanent renewal of professional life as a basic principle for future medical professional. The program should promote the integration of graduates into world educational and scientific sphere.

Improvement of High Quality Medical and Healthcare Service become priority around the world. According to World Health Organization, an average number of health care professionals in Europe is 340 per 100 thousand people. To solve the problem and to fill the shortage of highly-qualified medical staff, it is recommended to increase number of medical faculties and nursing schools.

Highly developed medical field and effective model of medical education system of Turkey was considered during program design.

During the formulation of the educational programme there is used the highly-developed medical sphere and effective medical educational system's model of Turkey, and also in the stage of educational programme implementation the theoretical and practical leaning aspects is integrated.

On the basic level the practical activities will be performed by using the appropriate facilities (tele-video conferences, multimedia facilities for distance learning), which are located in the auditories and laboratories of the university (anatomic, biochemistry and microbiology) and also in the clinical skills center.

Anatomy laboratory is equipped with the modern technology necessary for macromorphology learning. The clinical skills are equipped with the multifunctional educational moulds and simulators. Moreover the anatomy laboratory provides possibilities to perform anatomy and pathoanatomy laboratories on plasticized corpses.

From the 1st year of the study at the end of the each week in the second half of the day the learning process of the students will be conducted in the clinical environment – in the university clinic.

Integrated educational program, clinical site equipped with modern facility and equipments, highly qualified teaching staff (implementation of the program will involve teaching staff of Bahcesehir University (Istanbul) and leading clinicians of "Medical-Park" - its affiliates), as well as sharing of international experience through constant involvement in BAU Universities network, opportunities for student to take individual courses or modules in the universities network. The above-mentioned is the guarantee for training competitive specialists of international labor market.

Program description

The program is composed in line with the requirements of field peculiarities of Medicine educational program (Director's Order N225; 01.06.2011 of National Center for Educational Quality Enhancement) with considering international medical education experience.

It is focused on development of the learning outcomes relevant for second cycle of the higher education. The program is integrated. The curriculum is based on a spiral and is distinguished with an interdisciplinary approach. It includes both trans-disciplinary modules and individual learning courses. It is oriented to develop clinical competences, practical skills and to master in efficient management of medical resources.

From the first year of study students receive basic knowledge based on the problem and case oriented teaching methods and is involved in research activities

This eliminates the fragmentation of knowledge and ensures development of independent clinical thinking skills in the qualified medical professional.

Program duration - 6 years, volume - 360 credits, 12 semesters; 60 credits - on average per year; 30 credits - per semester. The student has the right to acquire more or less than 60 credits, but not more than 75 credits per year. One credit corresponds to 30 hours. Total number of hours equal 10800 hours, including 5582 contact hours and 5218 hours for independent work. Considering the specific learning courses (basic/clinical) daily load of student equals 6-8 contact hours per day. Classes in two basic disciplines will be held in two shifts (the first shift) 9:00-15:00 and the second shift 15:00 -21:00.

The main compulsory learning courses cover 334 credits. The program provides academic freedom of student and the principle of selection. Therefore, 26 credits are allocated for elective (optional) learning courses. Student can choose elective course from the fifth semester. Each of these courses varies from 2-6 credits per semester.

Moreover, non-georgian speaker student must study Georgian Language in III-IV semesters, and Georgian speaker have possibility to obtain English Language (C level) with the same amount of credits.

The program also considers training of a student's clinical skills that is provided by the learning courses: Good medical practice I, II (11 credits in total), Clinical clerkship I,II,III,IV,V, (20 credits in total) and research skills (19 credits). Educational program is provided in accordance with Educational Plan.

The program provides students' team work with real patients under the supervision of a teacher on its the clinical basis (50-70% will be held on the base). It will give them the opportunity to acquire clinical skills in the real environment, directly at the patient's bedside.

The duration and volume of the program is in line with "Law of Georgia on Higher Education" (art. 47¹) and subject specific of Medicine Educational program. After the completion of the program diploma of Medical Doctor is awarded (Medical Doctor, MD);

The program focuses on providing students with evidence-based theoretical knowledge and development of clinical skills, and therefore, the program aims to:

- study of human micro - and macromorphology (histology, anatomy) and normal function (physiology);
- understand, study and identify cellular, biochemical and molecular mechanisms of Homeostasis regulation;
- identify causes of diseases (genetic, caused by development disorders, metabolic, toxic, microbiological, neoplastic, degenerative, traumatic, etc) and development mechanisms (Pathogenesis);
- describe of structures of the human body and organ systems (pathologic anatomy) and changes in the functions (pathological physiology) during various diseases;
- study of economic, psychological, social and cultural factors impact on human health;
- identify on of infectious diseases (epidemiology) in a society and study of mitigation approaches;
- collect information on common diseases and to comment based on the clinical, laboratory, radiological and pathological data;
- gather Information about common diseases and to select the effective treatment methods based on scientific data;
- apply deductive method to discuss clinical problem solving;
- identify life-threatening diseases, to select the initial course of treatment and to manage the disease further, if necessary;
- have knowledge of health care organization and financing;
- study and exercise the law related to medical activities;
- introduce the concepts and principles of medical ethics; to develop decision-making skills to solve ethical problems;
- identify the factors that contribute to the disease, to recognize disease in advance or at early stage and to take necessary measures;
- develop detailed and qualitative reporting skills to make medical documentation;
- perform full and detailed diagnosis of diseases (research plan and interpretation of results)
- develop practical skills / manipulations (intravenous injection, catheterization, thoracocentesis, spinal puncture, nasogastric catheterization, urethral catheter insertion, stitches, etc.);
- understand and recognize value of scientific approach in terms of identification the causes of the disease, diagnosis and selection of treatment tactics;
- protect human and patient's rights as well as to protect privacy;
- develop mutual humane, conscientious and reliable relations between doctor and patient;

- develop proper communication skills to perform undertaken duties conscientiously and honestly and to communicate with patient, his/her family members and/or his/her relatives, colleagues and media representatives;
- prefer patient's interests to his/her interests;
- establish high sense of responsibility in relations with colleagues;
- follow high ethical principles with terminally ill patients;
- take care of such patients, who are not able to cover fees for medical services;
- aware necessity of constant renewal of knowledge and continuing professional development.

Areas of Employment

In accordance with the Law of Georgian on 'Medical Activity' After acquiring the credits in the frame of educational program, the graduates can work as Junior Doctor (under supervision of Doctor) or continue higher education at the next cycles, which are Doctoral Studies and/or Residency and after having passed the Unified State Certification Exams be authorized for the independent doctoral career path.

Also, the alumni can work as:

- Junior Doctors, in any organization related to the public health care (have no rights to work as the independent Doctor);
- In health sphere (ministry of health, insurance companies, ect.)
- in national and international pharmaceutical companies;
- forensic expertise centres;
- theoretical field of medicine and pedagogical sphere

Learning outcomes

Based on international standards of medical education and subject specific of the medical education program in subject characteristics, a graduate of the one-cycle educational program "Medicine" obtains the following competencies:

General competences

- **Knowledge and Understanding-** has a broad knowledge of the field that comprises critical comprehension of theories and principles; understands solutions to certain problems;
- **Applying knowledge-** is able to apply relevant methods in unpredictable and multidisciplinary environment, look for new, original ways in problem solving, including independent study using most recent methods and approaches;
- **Making Judgments** – is able to critically evaluate incomplete and contradictory data, to analyze data independently, and then to interpret and explain them in an understandable manner; is able to apply critical approach to new information, to analyze, summarize and integrate various data, as well as to make conclusion and to provide arguments and/or counterarguments while analyzing the results.

- **Communication skills** - is able to obtain information from various sources, to process a large volume of information processing and to evaluate it critically; Is able to apply searched information in professional activities; is able to communicate his/her conclusions, arguments and research methods with academic or professional society in Georgian and Foreign languages applying standards of academic integrity and the modern IT communication technologies; is able to observe, listen, ask question as well as to communicate verbally. Is able to participate in meeting and express his/her opinion both verbally and in written; is able to conduct negotiations and to resolve conflicts.
- **Learning Skills** – is able to apply the full range of information resources, to manage their own learning process. Is aware of the need for constant updating of knowledge; is able to assess his/her own knowledge and skills fairly, to carry out the learning independently, to realize the nature of the learning process and make strategic planning;
- **Values** – is able to assess his/her attitude and contribute in the process in forming new values;
- **Problem solving/Decision-making skills** – is able to identify complex problems, define its solutions, analyze the expected results and take final decision. Is aware of, and if necessary, uses additional resources.
- **Team working skills** – is able to work in group both as a leader and an ordinary member; is able to formulate objectives clearly, to make agreement with group members, to coordinate their activities and to adequately evaluate their abilities and to manage conflict and emergency situations.
- **New environment adaptation skills** – has practical working skills in group, professional subordination/adaptation skills; is able to learn new technologies.
- **Independent working skills** – is able to organize the time, to prioritize, to meet deadlines and perform his/her duties; is able to plan properly the activities related to resources, to be responsible for the performed work and evaluate and criticize it.

Competences of Specialty

Knowledge and Understanding

Graduate has knowledge about:

- Fundamental, behavioral, social and of clinical disciplines;
- The main groups of drugs; prescription principles in accordance with pathological conditions and diseases.
- Public HealthCare system and understands the role of a doctor in this system;
- Ethical and legislative norms;

Graduate is able to analyze the clinical condition and understands the difficulties to find the ways to solve the problem.

Applying knowledge and skills

Graduate is able to:

1. Provide patient with consultation

- Collect anamnesis;
- Conduct physical examination;
- Think critically and make decision;
- Clarify and give advise;
- Encourage the patient and to protect his/her rights;
- Evaluate the patient's psychological status

2. Evaluate clinical cases, appoint examinations, conduct differential diagnosis, discuss disease management plan

- understand and evaluate the complexity of the clinical report;
- appoint relevant tests and examinations and interpret the results;
- conduct differential diagnosis
- discuss disease management plan with patients and their caretakers;
- care for the terminal condition of patient and his/her family
- manage chronic diseases;

3. Emergency medicine (first aid and reanimation measures)

- identify and evaluate emergency medical status;
- provide urgent medical treatment;
- provide basic first aid;
- take appropriate basic life support and Cardiopulmonary reanimation measures in line with guidelines;
- treat injuries in according with guidelines.

4. Drug prescription

- prescribe drugs clearly and accurately;
- link appropriate drugs and other therapeutic measures to the clinical context;
- discuss compliance of drugs with other treatment; assess patient's potential benefits and risk
- treat pain and distress
- consider compatibility of drugs while treating

5. Demonstrate practical skills independently, on simulator device or under supervision:

- measure of blood pressure
- vein puncture (on simulator)
- peripheral vein catheterization, drugs infusion intravenously applying infusion device (on simulator device or under supervision)
- lumbar puncture (on the simulator device)
- Subcutaneous, intracutaneous/intradermal and intramuscular (on simulator device or under supervision)
- Oxygen supply (independently)
- Proper transportation and handling of the patient (independently)
- Wound cleaning, bandaging, suture insertion (on the simulator device)
- Blood transfusion (on the simulator device)
- Urinary catheterization (on the simulator device)
- Urine analysis (independently)

- Some biochemical and clinical analysis (independently)
- ECG taking and its interpretation
- Respiratory tract intubation (on the simulator device)
- Cardio-pulmonary reanimation (CPR on simulator device or under supervision)
- Respiratory function tests (independently)

Making Judgment

Graduate is able to:

- Evaluate psychological and social aspects related to disease;
- Evaluate disease diagnosis and psychological factors affecting on patient;
- Evaluate disease diagnosis and social factors affecting on patient;
- Identify the stress associated with the disease;
- Identify alcohol and drug addiction;
- Apply evidences in practice;
- Identify and conduct relevant literature research properly;
- Evaluate critically the published literature, make conclusion and use in practice.

Communication skills

Graduate is able to:

- Use effectively information and IT technology in medical context;
- Keep clinical records accurately and completely;
- Clinical Record keeping accurate and complete;
- Use modern IT technology in practice;
- Search for specific Information researches;
- Keep the information properly;
- Keep personal records (Portfolio);
- Communicate with the patient;
- Communicate with colleagues;
- Inform bad news;
- Communicate with patient's relatives;
- Communicate with disabled persons;
- Communicate to get the informed consent;
- Communicate in written; (including medical records);
- Communicate in conflict case;
- Communicate through the third person;
- Communicate with law enforcement agency and media;
- Effective communication with any person, regardless of his social, cultural, religious or ethnic origin.

Learning skills

Graduate is able to use the full range of educational and informational resources, to manage his/her own learning process, to organize, to define priorities, to meet deadlines and perform

his/her duties; Is able to obtain information from various sources, process it and assess critically; Realizes necessity to update knowledge continuously and to develop professionally. Is able to evaluate his/her knowledge and skills fairly, to apply scientific principles, methods and knowledge of biomedicine in medical practice; Has knowledge about the scientific research methodology, research design, detailed planning and ability to process the obtained outcomes.

Values

Graduate is be able to apply ethical and legal principles in the medical practice, to keep confidential and protect patient's rights; to conduct negotiations in the professional context with any person regardless his social, cultural, religious and ethnic origin. He / She follows fair, social and democratic values in cooperation with both patients and colleagues. Moreover, he/she is able to exercise ethic principles and analysis during treatment, to perform life support measures, to get involved in Public Health Care issues, to work effectively for Health Care system, to select method of treatment that minimizes risk the patient's life and to take infection prevention measures. He/she understands problems of his/her own health and is able to assess his/her health with respect to professional duties. He/she is able to participate in Health Care activities as both an individual and a citizen.

Teaching Methods

Teaching method and evaluation components of each learning course or a module are relevant to the aim of the particular discipline and the expected learning outcomes; they also consider the content, format and specific of the subject.

The interactive lectures, group work, practical training, laboratory teaching and seminars will be the main components of the teaching process.

The methods of explanation, discussion/debate, illustration, induction/ deduction, problem-based learning, synthesis and analysis will be used during group work / practice.

At the initial stage of training, clinical skills will be developed applying simulators and manikins, as well as role-playing (doctor-patient) games. Later, further development will be achieved in a clinical environment, via direct involvement of a student in bedside teaching, examination and treatment.

Student Assessment System

Student is awarded credits in the learning component of the educational programme for meeting the learning outcomes stipulated in syllabus that is confirmed with the positive evaluation. Student's knowledge is assessed based on the 100-score system at the University.

60 points are considered for the mid-term evaluations that include:

1. Attendance, daily verbal and written response, project preparation and presentation or other activities set by the course leader based on th subject specification that is set in syllabus in details - 40 s
2. Midterm examination – 20 s

40 s. are awarded to final examination. The examination is passed if a student gets 70% or more of the maximum exam score ($40 \times 70 / 100 = 28$ scores).

The student is allowed to the final exam, if the maximum points of the mid-term and final examinations accumulate 51 scores.

Credits are awarded to the student if he accumulates from 51 to 100 scores. There are five types of positive assessments and two types of negative assessment.

Scores assigned in the assessment system

Points	Assessment
91-100 (A)	Excellent
81-90 (B)	Very good
71-80 (C)	Good
61-70 (D)	Average
51-60 (E)	Satisfactory
41-50 (FX)	Failed - Unsatisfactory, the student is given one opportunity to retake the exam
0-40 (F)	Failure, in order to receive credit student must study module/learning course again

The module will be assessed through mid-term and final exams.

The final grade of the integrated learning course with the unified assessment methods (all learning formats are used for the disciplines of module) sums up the average points of the separate unit mid-terms (within 60 scores) and final examination (40 scores).

The final grade of the integrated learning course with the non-unified assessment methods is calculated as the arithmetical sum of module disciplines with use of disciplines' coefficient for and mid-terms (within 60 scores) plus the final examination score (40 scores).

Human and Material resources

Lectures and group works in basic disciplines will be held at relevantly equipped classrooms, laboratories (anatomic, biochemical, microbiological) as well as at clinical skills center of the University. The anatomic laboratory is equipped with the modern technology necessary to teach macro-morphology; Biochemical and microbiological laboratories are equipped with the microscopes (individual per student) of the company "Leica" and other necessary laboratory appliances. There are multi-functional training models and simulators in the clinical skills center. The building is equipped with computers connected to internet. Students will benefit from the both university's own library and the E-library of Bahcesehir (Istanbul) medical faculty. Since the first year, on the second half the last day of the week the learning courses will be held in a clinical environment- at the clinical base of the the University. Clinical courses will be held at the university as well as its affiliated clinics contracted with Memorandums of Understanding.

The learning process will be conducted both by academic staff of the University and invited teachers from Georgia, and also from Bahcesehir (Istanbul) medical faculty and the University hospital "Medical Park".