

## Tbilisi State Medical University

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| <b>Faculty</b>  | Pharmacy   |
| <b>Educational Program Title</b>                                  | Master's program „Clinical Pharmacy”   |
| <b>Awarded academic qualification/degree</b>                      | Master of „Clinical Pharmacy”  |
| <b>Program Director</b>   | Associate Professor Tamaz Tchumburidze<br>Assistant Professor Nino Nemsitsveridze  |
| <b>Credit Value of the Program</b>                                | 120 ECTS credits   |
| <b>Language of Instruction</b>                                    | Georgian   |
| <b>Program Objectives</b>   | <p>The objective of the program is to train clinical pharmacists who work alongside doctors to:</p> <ul style="list-style-type: none"> <li>- Implement rational pharmacotherapy</li> <li>- Select effective, safe, and easy-to-use drugs</li> <li>- Consider the pharmacokinetic and pharmacodynamic factors of medicinal products.</li> </ul>   |
| <b>Prerequisite(s) /Requirements for admission to the program</b> | <p>Admission to the master's degree program is governed by regulations approved by the university's Academic Council, as well as rules established by Georgia's legislation. The Academic Council of TSMU has made relevant decisions # 24/5 from May 7, 2012, and # 24/3 from May 15, 2017.</p> <ul style="list-style-type: none"> <li>- To be eligible for a master's degree, an individual must possess a bachelor's degree or an equivalent qualification.</li> <li>- To continue with the master's program, an individual must pass the general master's exam (A test) and the exams specified by Tbilisi State Medical University in the relevant field and English language with a score of over 50%+1.</li> <li>- Candidates who have passed the minimum competency limit established by Georgia's legislation in the general master's examination have the right to participate in the examination/examinations established by the higher educational institution.</li> </ul> <p>-Enrollment in the master's program is subject to the pre-announced admission quota and competition according to the rules. Mobility access follows Georgian legislation and TSMU regulations.</p> |

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| <p><b>Program short description</b></p>           | <p>The Clinical Pharmacy Master's program is designed to integrate medical and pharmaceutical subjects. The program curriculum includes modules covering basic, pharmaceutical and medical disciplines, as well as a practicum where postgraduates acquire pharmaceutical and medical skills, paying attention to OSCE elements. The curriculum is developed with reference to the experience of master's programs at foreign universities. At the second step of education - the master's program, students are required to defend their master's diploma thesis before being awarded the academic degree of master of clinical pharmacy.</p> <p>The Clinical Pharmacy Master's Program is 2 -year, 4 -semester course that provides 120 ECTS credits of performance.</p> <p>These credits are distributed across several modules, including:</p> <ul style="list-style-type: none"> <li>- Basic training courses (15 credits)</li> <li>- General profiling module (14 credits)</li> <li>- Private profiling module (8 credits)</li> <li>- Clinical skills module (15 credits)</li> <li>- Profile training courses (21 credits)</li> <li>- Non-professional training courses (13 credits)</li> <li>- Research component (30 credits)</li> <li>- Optional training courses (4 credits)</li> </ul> |
| <p><b>Student Knowledge Assessment System</b></p> | <p>Assessment of the MA student achievements is carried out in accordance with the order #3 of January 5, 2007, issued by Minister of Education and Science of Georgia.</p> <p>The University works according to the European Credit Transfer and Accumulation System (ECTS), based on learning outcomes, transparency of the educational process and a student-oriented system.</p> <p>Its purpose is to facilitate planning, implementation, evaluation/recognition of study components, as well as student mobility.</p> <p>Assessment components comprise midterm assessment and final assessment, their sum determines the student's final assessment.</p> <p>Maximum assessment of the study course is 100 points, which is the sum of the intermediate evaluations (minimum competence threshold - 31 points) and the final grade.</p> <p>A Master's (MA) student who can get a score of at least 51 points summarizing the intermediate assessment and the minimum positive assessment of the final exam is allowed to take the final exam.</p>   |

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|                                 | <p>The evaluation of the activity performed by the master's student includes:<br/> Mid-term assessment of the student determined by 0-60 points, represents the sum of the points obtained according to the knowledge assessment methods/components (academic activity - colloquium, presentation, etc.) envisaged by the syllabus of the study course/module.<br/> Final exam grade.<br/> Maximum assessment of the study course/ module is 100 points, with a portion of 0-40 points designated for the final exam evaluation<br/> Evaluation system allows:<br/> Five types of and two types of negative grades<br/> Positive Grades<br/> (A) Excellent – 91 - 100 points;<br/> (B) Very good – 81-90 points;<br/> (C) Good – 71-80 points;<br/> (D) Satisfactory – 61-70 points;<br/> (E) Acceptable – 51-60 points.<br/> Negative Grades<br/> Two types of negative grades<br/> (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;<br/> (F) Fail – 40 points, meaning that student's work is not acceptable, and they will have to study the subject again.<br/> The additional requirements established for the assessment of student achievements in a separate study course/module are detailed in the relevant syllabus and are known to students.</p> |
| <p><b>Learning Outcomes</b></p> | <p><i>Knowledge and Understanding</i></p> <p>Possesses the knowledge and professional skills required to work as a pharmacist in a pharmacy or clinic.</p> <p><i>Skills</i></p> <p>Able to adhere to ethical codes and deontological norms and communicate securely with patients, customers, colleagues, doctors, and society.</p> <p><i>Responsibility and autonomy</i></p> <p>Establishing international standards in clinical pharmacy and taking responsibility for patient care in public is crucial for harmonious patient relations between pharmacists and doctors.</p>  |

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| <b>Fields of Graduate Employment</b> | The Master of Clinical Pharmacy can work in various settings such as pharmacies, pharmaceutical companies, clinics, and the Ministry of Health, based on the scope of competence. |
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**Curriculum**  
**Master's program in „Clinical Pharmacy”**

| N | Components   | Credits | Hours      |         |          |          |         |                  | Allocation of credits by semesters |        |        |        |
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|   |  |         | Among them |         |          |          |         |                  | I sem                              | II sem | III sm | IV sem |
|   |  |         | contact    | lecture | practice | practice | Seminar | Independent work |                                    |        |        |        |
| 1 | 120 Credits  | 3       | 4          | 5       | 6        | 7        | 8       | 9                | 10                                 | 11     | 12     | 13     |
| 1 | Basic Module 1: Physiology, Biochemistry, Pathological Physiology  | 15      | 180        |         |          |          |         | 270              | 15                                 |        |        |        |
| 2 | Pharmacology   | 5       | 60         |         |          |          |         | 90               | 5                                  |        |        |        |
| 3 | Pharmacotherapy  | 10      | 120        |         |          |          |         | 180              | 10                                 |        |        |        |
| 4 | Private Purpose Module 2: Biopharmacy, pharmacokinetical analysis  | 8       | 96         |         |          |          |         | 144              |                                    | 8      |        |        |
| 5 | Regulation of pharmaceutical activities  | 4       | 48         |         |          |          |         | 72               |                                    | 4      |        |        |
| 6 | Pharmacoeconomics  | 2       | 24         |         |          |          |         | 36               |                                    | 2      |        |        |
| 7 | General Profile Module -3<br>Basics of Clinical pharmacy;<br>Clinical pharmacokinetics;<br>Applied Clinical pharmacy | 14      | 170        |         |          |          |         | 250              |                                    | 14     |        |        |

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| 8  | Elective Subjects<br>Polypharmacy  | 2  | 24  |  |  |    |  | 36  |   |   |    |    |
|    | 2. Organizational behavior and human resource management in pharmaceutical organizations | 2  | 24  |  |  |    |  | 36  |   | 2 |    |    |
|    | 3. Principles of Etics and Bioethics in the Management of the Pharmaceutical activity    | 2  | 24  |  |  |    |  | 36  | 1 |   | 3  |    |
| 9  | Clinical Psychology  | 4  | 48  |  |  |    |  | 72  |   |   | 4  |    |
| 10 | Professional English language  | 4  | 48  |  |  |    |  | 72  |   |   | 4  |    |
| 11 | Module 4.<br>Clinical skills with OSCE elements (practice)                               | 5  | 180 |  |  | 15 |  | 270 |   |   | 15 |    |
| 12 | Information technologies in science (IT in Science)                                      | 2  | 24  |  |  |    |  |     |   |   | 2  |    |
| 13 | Statistics, quantitative and qualitative characteristics of a research                   | 3  | 36  |  |  |    |  |     |   |   | 3  |    |
| 14 | Elective: Communication skills in the clinic   | 2  | 24  |  |  |    |  | 90  |   |   |    |    |
|    | Elective: pharmaceutical market policy   | 2  | 24  |  |  |    |  |     |   |   | 2  |    |
|    | Elective: Basic English Terminology  | 2  | 24  |  |  |    |  |     | 2 | 2 |    |    |
|    | Master Thesis  | 30 | 360 |  |  |    |  | 540 |   |   |    | 30 |