

Tbilisi State Medical University

Pharmaceutical Analysis

Program Name	Pharmaceutical Analysis
Program Leader	Associate Professor Tamar Chilkviladze
Qualification to be awarded	MA of pharmaceutical analysis
Program volume in credits	120 ECTS credits
Language of Instruction	Georgian
Aim of the program, which is focused on developing student competences and defining the sphere of employment	<p>Healthcare and improvement are one of the priorities of the state and while society. Efficient healthcare system definitely implies providing the population with quality efficient and safe pharmaceutical product, protection from hazardous, falsified, non-useful and expired means of treatment; taking substantial measures against drug addiction and toxicomania. Pharmaceutical analysis is the most significant element in ensuring the quality of medicine and good of medical purpose; in the area of standardization of means of treatment, pharmacopeic, pharmacognostic, pharmaco-kynetic and chemical-toxicological analysis.</p> <p>The aim of the MA program is to train the pharmacy worker of respective qualification who will be able to work independently at the laboratories of quality control of medicine and medicine control, narrow profile scientific-research establishments, meet the requirements of GMP and ISO, be guided by the best laboratory practices principle and serve as the guarantee of quality and security of the production existing at the country's pharmaceutical market.</p>

Pre-requisites of the program	The bachelor of pharmacy is admitted to the MA program or a pharmacist who as gone over the minimum margin of the united post-graduate exam and successfully passed internal university exams in his/her own field and the foreign language.
Learning Outcome	
Methods of achieving learning outcomes	<ul style="list-style-type: none"> • Discussion/debate • Group work • Brainstorming • Method of demonstration • Method of explanation • Action-based instruction • Verbal or oral method • Written work method • Practical methods
System of Assessing Students Knowledge	<p>Assessment of student's/MA candidate's work envisages:</p> <p>a) Mid-term evaluation (all compulsory components to be fulfilled by the student, which are envisaged in accordance with the syllabi of the training course/module);</p> <p>b) Assessment of the final exam.</p> <p>Maximum assessment score of the course/module is 100 out of which 40 points are allocated to the maximum of the final exam. Main methods of assessment used are: testing, oral or combined summative exam.</p> <p>There are five types of positive and two types of negative assessments.</p> <p>Positive assessments are:</p> <p>a) A (Excellent) - 91-100 % of maximum assessment;</p> <p>b) (B) Very good – 81-90 % of maximum assessment;</p> <p>c) (C) Good – 71-80 % of maximum</p>

	<p>assessment;</p> <p>d) (D) Satisfactory – 61-70 % of maximum assessment.</p> <p>e) (E) Sufficient - 51-60 % of maximum assessment</p> <p>Negative Assessments are:</p> <p>a) (FX) Failed to pass – 41-50 % of maximum assessment, which implies that the students needs to work more to pass and gets the right to take an additional exam after independent work</p> <p>b) (F) failed – 40 % of maximum assessment and less which means that the work carried out by the student is not enough and a/he has to study the subject again</p> <p>The correlation between various components of assessment is defined by the syllabus of the separate course of the MA program. The share of the exam in the final assessment (mid-term and the final exams) does not exceed 40 %.</p> <p>The MA student has the right to pass the additional exam in the same semester. The period between final and respective additional exams should not be less than 5 days.</p> <p>Based on the criteria envisaged by the educational program, practical work, MA and/or other types of work are assessed by the 100-point system.</p> <p>Members of the committee of defending MA theses assess the MA work by the score of 0-100. The score is calculated by the members of the qualifying board of defending MA theses on the basis of the grade point average of the sum of the scores granted.</p> <p>In case of assessing the MA thesis at the score</p>
--	---

	<p>of 51 and more, the work is considered defended based on the following distribution of assessment scores:</p> <p>91-100 – Best piece of work; 81-90 – Very good piece of work; 71-80 – Good piece of work; 61-70 – Average piece of work; 51-60 – Satisfactory piece of work; 0-50 – Non-satisfactory piece of work;</p> <p>In case of the failure to appear at the defence of the MA thesis due to a reasonable cause (illness, etc.) the work can be submitted within the period of 1 month or at the following defense with the consent of the board of the respective department.</p> <p>In case of receiving less than 51 scores at the public defense, it is possible to re-submit the thesis and defend it at the coming defense on the basis of the board of the respective faculty.</p> <p>The MA thesis may be submitted for defense not less than two times, by retaining the teaching component.</p>
--	--

Curriculum:

N	Subjects	Total credits	Hours						Distribution of credits according to semester			
			among them						I	II	III	IV
			Contact hours	Lecture	Practical	Practice	Seminar	Independent work				
1	Professional English language	4	48				48	76	4			
2.	Pharmacopoeial analysis	12	144	14	130			216	12			
3.	Pharmacokinetics	6	72	12	60			108	6			
4.	Toxicological analysis	6	72	12	60			108	6			
5.	Pharmacognosy analysis	10	120		120			180		10		

6.	Standardization of medicines	12	144	64	80			216		12	
7	Professional Practice I (Drug Testing Laboratory "Globalest")	7	84		84			126			7
8	Professional Practice II (the pharmaceutical company "GMP" Drug Quality Laboratory)	7	84		84			126			7
9.	Professional Practice III (TSMU I. Kutateladze Institute of Pharmacochemistry)	4	48		48			76			4
10	Professional practice IV (NFB chemical-toxicological examination Division)	6	72		72			108			6
11	Master's Thesis	36	432					648			36
	Elective disciplines										
12	Chromatographic methods in pharmaceutical analysis	2	24		24			36	2		
13	Maintenance of pharmaceutical analysis	2	24		24			36	2		
14	Principles of forming phytoprefactors from natural compounds	4	48				48	72		4	
15	Forensic expertise of the toxic plants	4	48		48			72		4	
16	Regulation of biologically active supplements and homeopathic remedies	2	24	8	16			36		2	
17	Regulation of dental materials and diagnostic means	2	24	8	16			36		2	
18	Registration of veterinary, disinfecting, disinfecting, deservng means	2	24	6	18			36		2	
19	Polypragmazy	2	24	10	14			36		2	