

С.Ж. АСФЕНДИЯРОВ АТЫНДАҒЫ  
ҚАЗАҚ ҰЛТТЫҚ МЕДИЦИНА УНИВЕРСИТЕТИ



КАЗАХСКИЙ НАЦИОНАЛЬНЫЙ МЕДИЦИНСКИЙ  
УНИВЕРСИТЕТ ИМ. С.Д. АСФЕНДИЯРОВА

ASFENDIYAROV KAZAKH NATIONAL MEDICAL  
UNIVERSITY



Claim  
Vice-rector for research  
activities Zhusupov B.S.

2018 y.

THE PROGRAM OF ENTRANCE EXAMINATIONS TO  
MASTER'S DEGREE  
SPECIALTY 6M110400 - " PHARMACY»  
IN THE 2018 – 2019 ACADEMIC YEAR

Almaty 2018 y.



The program was discussed and approved at a meeting of the Department "OMEF and CF" Protocol № 12, from " 02 " 06 2018 y.

Head of department  
OMEF and CF

Zhakipbekov K. S.

The program was approved at a meeting of the Committee for Educational Programs in the specialty "Pharmacy" Protocol № 12, from " 05 " 06 2018 y.

Chairman of the CEP

Amantayeva M.E.

The program was approved at the meeting of the academic Council of KazNMU Protocol № 6, from " 14 " 06 2018 y.

Chairman, Professor

Baildinova K. Zh.



### Introduction

The training program is aimed at studying the basics of analysis, forecasting of economic indicators of pharmacy organizations and modern accounting in accordance with the requirements of the law to the order of its management, which forms professional knowledge, skills and specialist working in the pharmaceutical market. Special attention is paid to the conceptual issues of the use of multifunctional equipment and automatic lines, the perspective directions of improving the industrial technology of drugs.

#### **The purpose of the entrance exam:**

To evaluate the complex of competencies (knowledge, skills, etc.) acquired by the graduate in the process of training in the main educational programs of the disciplines "Management and Economics of pharmacy", "industrial technology of drugs", "Pharmaceutical chemistry", "Pharmacognosy", providing the possibility of a certain type of professional activity.

#### **Objectives of the entrance exam:**

- know the methods of forecasting the main indicators of financial and economic activity of pharmaceutical organizations (planning the volume of sales of goods, rationing of inventories, forecasting costs and profits);
- know the accounting of commodity and material values in pharmaceutical organizations (movement of goods, cash accounting, formation of own and borrowed funds, accounting);
- know the forecasting and analysis of the main economic indicators of pharmaceutical organizations, work independently with information (educational, reference, regulatory, scientific);
- know the planning and conduct of independent research in the field of pharmacy;
- to know about the achievements of pharmaceutical science and practice; the concept of development of pharmacy at the present stage;
- know about the main regulatory documents related to the production, quality control, distribution, storage and use of medicines domestic and international standards (GMP, GLP, GPP), Pharmacopoeia, guidelines and instructions approved by the Ministry of health of Kazakhstan;
- know the rules of providing aseptic conditions for the manufacture of medicines;
- to know the General principles of selection and evaluation of quality and operation of technological equipment (filtration plants, grinding machines and machines, sieving plants, installations and sterilization devices, etc.);
- know the basics of environmental safety of production and use of drugs, safety, safety rules;
- to know about the algorithm of development, testing and registration of drugs, the methodology of optimization of existing drugs based on modern technologies and biopharmaceutical research in accordance with the international system of requirements



and standards, as well as to have a holistic view of the problems of the modern pharmaceutical industry;

- to give students theoretical knowledge about the methods of production, structure, physical and chemical properties, the relationship of chemical structure with pharmacological activity, methods of analysis of drugs;
- to provide a methodology for the pharmaceutical and pharmacognostic analysis of drugs at the stages of development, receipt, storage and application;
- to develop students' skills and practical skills of conducting pharmaceutical and pharmacognostic analyses in accordance with the regulatory and technical documentation for the control of quality and safety of medicines;
- - know the range of raw materials, plant and animal origin, suitable for industrial production;
- know the quality control and standardization of medicinal plant and animal raw materials, according to Pharmacopoeia requirements.

**Form of the meeting:** the Entrance exams of the second stage (stage 1 test is English language proficiency test as a foreign language) consists of two periods:

1. Tests in specialized subjects
2. Interviews

Interviews will be conducted in the form of an Essay (Supplement 1 and 2).

### **The content of disciplines for the entrance exam in the specialty 6M110400 – "pharmacy"**

**Management and Economics of pharmacy** is one of the special pharmaceutical disciplines, which forms professional knowledge, skills of a specialist working in the pharmaceutical market. This discipline is a logical continuation of the study of the discipline "Fundamentals of pharmaceutical activity", on the basis of other subjects covers management and economic activities of subjects of circulation of medicines. The curriculum of the discipline "management and Economics of pharmacy" is aimed at studying the basics of analysis, forecasting of economic performance of pharmacy organizations and modern accounting in accordance with the requirements of the law to the order of its conduct.

**"Technology of drugs"** is one of the disciplines that determines the content of the practical activity of the pharmacist

technologist of the pharmaceutical industry, whose main tasks are: the study of the theoretical foundations of the manufacture of medicines of pharmacy and industrial production, applying the principles of the process and compliance with the sanitary regime in accordance with international norms and standards; development of new medicines in rational dosage forms and improvement of existing prescriptions and technological schemes of obtaining on the basis of biopharmaceutical studies using modern equipment for their production, etc.



At the present stage, the issues of creation of long-term and directed action dosage forms with controlled release of drugs are relevant; development of new types of packaging; search for new auxiliary substances, improvement of quality control of dosage forms; conducting biopharmaceutical studies using the methods of "invivo" and "invitro".

**Pharmaceutical chemistry** is an applied science based on General chemical and physical laws and engaged in research of methods of obtaining, structure, physical and chemical properties, the relationship of chemical structure with pharmacological activity and the development of methods of analysis of drugs.

Pharmaceutical chemistry as the main subject in a number of special disciplines, determines the specifics of pharmaceutical analysis of drugs, their determining importance in medical practice. A special place in the analysis of drugs is occupied by various derivatives of aromatic and heterocyclic compounds. The importance of these compounds in medical practice for the treatment and prevention of various diseases is growing, which is explained by the significant superiority over known similar groups of compounds. Their effectiveness is directly related to their chemical structure. The possibilities of various chemical, physico-chemical, biological analysis methods for aromatic and heterocyclic drugs are dictated by the peculiarities of the chemical behavior of these compounds. This is especially true for the analysis of not only the physiologically active part of the molecule, determining the chemical structure, but also the individual functional groups, included in the structure of the compound. The determining factors for the analysis of drugs of such a number of compounds are structural features, physical and chemical properties.

Taking into account the peculiarities of various types of pharmaceutical analysis, certain patterns of analysis for pharmaceutical forms of pharmacy and industrial production are traced.

**Pharmacognosy** - one of the pharmaceutical sciences, studying the raw materials of plant (medicinal plants) and animal origin, as well as primary processing products of plant and animal origin. Taking into account the increased requirements of practical pharmacy pharmacognostic training pharmacist, the program expanded the range of issues related to the collection, procurement, analysis, quality control, standardization and storage of medicinal plant materials on the basis of rational use of natural resources of medicinal plants in accordance with the requirements of the Pharmacopoeia of domestic, CIS and foreign countries. The program is made taking into account the existing regulatory documentation for medicinal plant raw materials included in the State Register of medicines allowed for use in medical practice and industrial production in Kazakhstan.

**The list of exam questions in the disciplines  
"Management and Economics of pharmacy and technology of drugs»**



1. Introduction to the basics of pharmacy Economics: value, object, macro - and micro-levels, principles, specifics, scope.
2. Economic indicators of functioning of pharmacy organizations.
3. The main methods of economic analysis, planning and forecasting of economic indicators of the functioning of pharmaceutical entities. Budgeting.
4. Economic indicator "turnover": value, characteristics. Characteristics of the economic indicator "turnover", retail and wholesale trade.
5. Planning and forecasting of trade turnover at current prices and taking into account the price index.
6. Analysis and planning of pharmacy organizations ' recipes.
7. Inventory, tovarooborot. Analysis and management of inventory.
8. Commodity support of sales volume. Planning the receipt of goods to the pharmacy, financial support of the planned volume of goods.
9. Analysis, planning and forecasting of distribution costs of pharmacy organizations.
10. Analysis, planning and forecasting of indicators on labor and wages of pharmacy organizations.
11. Trade overlays of pharmacy organizations: education, value, analysis, planning and forecasting.
12. Profit of pharmacy organizations: definition, value, characteristics, types, use of profit.
13. Economic results of financial and economic activities of pharmacy organizations. Profitability: definition, analysis, planning and forecasting.
14. Economic category "price": value, functions, classification. Types of prices for medicines. Problems of pricing and availability of medicines, medical devices and medical equipment.
15. State regulation of prices for medicines. The structure and procedure for the formation of the sales price of the manufacturer, the distributor's selling price, the retail price of finished medicines.
16. Taxation of subjects of pharmaceutical activity.
17. The crediting of the subjects of pharmaceutical activities.
18. Accounting and reporting system of the Republic of Kazakhstan: General characteristics, basic concepts, types of accounting, accounting meters. The accounting policies of pharmacies.
19. The receipt and acceptance of inventory in the pharmacy organizations.
20. Accounting of retail sale of goods in pharmacy organizations. Accounting of wholesale organization and other consumption of goods in pharmacy organizations.
21. Accounting of cash in the pharmacy organizations. Accounting for non-cash payments in pharmacy organizations. Formation of own funds of organizations, institutions, enterprises.



22. Inventory of inventory, cash and payments in pharmacy organizations.
23. Preparation and analysis of management reports. The procedure for the "Commodity report" of pharmacy.
24. Financial accounting and reporting of pharmacy organizations.
25. Automated accounting systems in pharmacy.
26. Tasks of medicine technology. The main directions of their decision. State programs for the development of the pharmaceutical industry of the Republic of Kazakhstan.
27. Rationing of quality of dosage forms, substances. Rationing Pharmacopoeia production and quality of drugs and dosage forms. Features of the state Pharmacopoeia of the last edition. international Pharmacopoeia.
28. Nomenclature and classification of auxiliary substances. Basic components. Stabilizers of dosage forms as physical and chemical systems. Preservatives, extenders, solubilizers, etc. corrigenda a brief description of the application.
29. Powders as a dosage form. Definition. Characteristic. Requirements for powders. Classification of powders. Stages of powder technology. Evaluation of the quality of powders. Storage.
30. Medical solutions. Classification of solutions. Modern range of solutions and prospects of its expansion in industrial conditions. Preparation of solutions in various ways in chemical and pharmaceutical companies.
31. Basic provisions and requirements of the instruction " Good manufacturing practice (GMP)". Production (industrial) regulations as the main technological document.
32. Thermal processes in pharmaceutical production. Heat exchangers of periodic and continuous action. Vacuum evaporation. Devices and their principle of operation. Side effects of evaporation and ways to eliminate them.
33. Drying of various materials in pharmaceutical production. Factors determining the drying process. Method of drying. Dryers.
34. Extraction. The main technological factors affecting the completeness and speed of extraction. Ways of intensification of mass transfer. Methods of extraction.
35. Tinctures. Classification. Getting settings. The range of tinctures. Clear the settings. Standardization of tinctures. Storage.
36. Extracts. Definition. Classification by consistency and applied extractant. General characteristic. Liquid extract. Production method. Cleaning. Standardization. Storage. Nomenclature of liquid extracts.
37. Thick and dry extracts. Standardization. Storage. Nomenclature of thick extracts. Oil extract. Prospects for the development of the production of extracts.
38. The most purified phytopreparations. Methods of extraction of plant material. Extractants. Methods of purification of primary extracts from related substances.



Standardization. Obtaining individual remedies. Methods of selection, cleaning and separation. Standardization. Storage.

39. Preparations from animal raw materials. Features of animal raw materials. Classification of organ preparations. Getting drugs. Standardization. Enzyme preparation. Classification. Obtaining enzyme preparations. Methods of immobilization and standardization. Packaging. Storage. Definition.

40. Tablets. Characteristic. Types and range of tablets. Theoretical bases of tableting. The main groups of auxiliary substances used in the production of tablets. Stages of the technological process of tablets. Storage. Quality assessment. Modern range of tablets.

41. Medical capsules and microcapsules. Types of medical capsules. The range, properties of auxiliary substances used in the production of gelatin capsules. Methods of production of medical capsules. Standardization. Packaging. Storage.

42. Production of suspensions and emulsions in industrial conditions. Equipment. Standardization. Storage.

43. Ointments and pastas. Features of technology of dermatological, rectal and vaginal ointments. Equipment. Modern methods for assessing the stability and effectiveness of ointments. Storage of ointments and pastes.

44. Suppositories of industrial production. Characteristics of the basics. Technological equipment for the production and packaging of suppositories. Methods for preparing suppositories in the factory. Standardization. Storage.

45. Solutions for injections in ampoules. Requirements for dosage forms for injection. Solvents for injectable dosage forms. Production of ampoules and bottles. Preparation of injection solutions in industrial conditions. Methods of sterilization of injection solutions. Quality assessment. Labeling of ampoules. Packaging. Automatic packaging of ampoules.

46. Features of the technology of eye dosage forms of industrial production. Eye ointment. Eye medicinal films. Types and prospects of packaging of dosage forms for the eye. Packaging for single use, dropper tubes.

47. Biopharmacy as one of the main theoretical areas of drug technology. The inadequacy of the therapeutic action of medicinal substances. Pharmaceutical factors affecting the biological availability of drugs.

48. Veterinary drug. Definition. Classification. Features and rules of preparation of raw materials for the preparation of veterinary drugs. Rules of storage and standardization of raw materials.

49. Dosage forms for use in geriatric and pediatric practice. Requirement to them. Requirements for auxiliary substances. The problem of creating drugs for children and geriatric patients.

50. Advances in pharmaceutical technology in the creation of new dosage forms. Therapeutic system.



**The list of exam questions in the disciplines  
"Pharmaceutical chemistry" and " Pharmacognosy»**

1. Unification of special terms in the field of pharmaceutical analysis.
2. Nomenclature of drugs, reagents and solvents in inorganic and organic chemistry.
3. Terms used in the certification of medicines.
4. Definition of the concept of "Standard sample".
5. Nomenclature of the "state register of medicines" of the RK.
6. The concept of the terms "Density", "Viscosity" in the pharmaceutical analysis of drugs.
7. The concept of the terms "refractive Index "(refractive index)," Optical rotation","Osmolality".
8. The concept of the terms "melting Point", "boiling Point", "solidification Temperature".
9. Definition of terms of physical and chemical methods "Fluorimetry", "Atomic emission spectrometry", "Atomic absorption spectrometry".
10. Definition and concepts of physical and chemical methods "thin Layer chromatography", "Gas chromatography", "Liquid chromatography".
11. Whether the loss in weight during drying of calcium lactate to the requirements of the State Pharmacopoeia (not more than 30%) if the mass of buxa 21,3782 G., Massa buxa with linkage to drying 21,9772 G., Massa buxa a hitch after drying: the first weigh – 21,8115 g, a second weighing – 21,8105, the third weigh – 21,8102?
12. Conduct a test for the authenticity of hydrogen peroxide preparations. Write the equations of chemical reactions.
13. In determining the loss of mass upon drying peroxide of magnesium mass buxa - 18,3176 G., Massa buxa with the linkage of the substance to drying – 18,8342 g, after drying: the first weigh – 18,8086 g, a second weighing – 18,8084 g.. Calculate the mass loss when drying magnesium peroxide in %. Does it meet the requirements of The state Pharmacopoeia (not more than 4.5 %)?
14. What cations can be opened by coloring a colorless flame?
15. Calculate the content of essential oil in the analyzed sample of sage leaves, if using sample weight of raw materials 21.1036, the volume of essential oil in the graduated part of the receiver was 0.175 ml, and the weight loss when drying-14 %.
16. Run a phenol identification test. Write the equations of chemical reactions.
17. Conduct a test to determine the impurities in the preparation of cyanocobalamin.
18. Do a test for the authenticity of the folic acid drug. Write the equations of chemical reactions.
19. Conduct a test to identify a number of phenothiazine drugs. Write the equations of chemical reactions.



20. Give the definition of the quantitative content of the drug ibuprofen. Write the equations of chemical reactions.
21. Calculate the sample of salicylic acid ( $M_m = 138,12$ ), to go to the titration of 25 ml of 0.05 mol/l sodium hydroxide solution. How and why is ethanol neutralized? When make analyzed the medicinal substance in ethanol?
22. Test and give the equation of the reaction of the authenticity of aromatic acids (benzoic acid) and their salts (salicylate sodium).
23. Conduct a test for the quality and give the equation of the reactions of sodium para-aminosalicylate.
24. Write the reactions for the quantitative determination of chinosol ( $M_g = 388,40$ ) method of alkalimetry. Specify the indicator, name, formula, color transition at the end of the titration. Calculate the content of quinozol in the analyzed sample ( % ), if the titration sample weight 0.4896 g spent 24.9 ml 0.1 mol/l sodium hydroxide solution (correction factor = 1.01).
25. Give the reaction equation of the quantitative determination of salicylic acid ( $M_m = 138.12$ ) by neutralization (state Pharmacopoeia), the name, the formula, the color transition at the end of the titration and calculate the molar mass equivalent. Calculate the overhang of salicylic acid to the titration went 25 ml 0.05 mol / l sodium hydroxide solution. How and why is ethanol neutralized? When make analyzed the medicinal substance in ethanol?
26. Pharmacopoeia method for determination of impurities in marshmallow roots.
27. The main microscopic diagnostic signs of calendula flowers.
28. Pharmacopoeia method of quantitative determination of polysaccharides in plantain leaves large.
29. Qualitative reactions of detection of saponins in plant extract (SF RK).
30. Pharmacopoeia method of chromatographic analysis of monosaccharides in psyllium seeds.
31. The main microscopic diagnostic signs of marshmallow root.
32. Pharmacopoeia method of isolation of polysaccharides from MPRM.
33. Pharmacopoeia method of quantitative determination of lipids in MPRM (Soxhlet apparatus).
34. Method of carrying out organoleptic analysis of fatty oil, tests for authenticity and purity (SF RK)
35. Pharmacopoeia method for determining the density and refractive index of fatty oil or fat.
36. Pharmacopoeia method of isolation of coumarins from MPRM Ammi large.
37. Sage medicinal, external signs of. The basic microscopic diagnostic features of the leaves of sage.
38. Qualitative reactions of detection of alkaloids in medicinal plant materials.
39. Pharmacopoeia method for the detection of saponins in herbal drugs by TLC.



40. Pharmacopoeia method of quantitative determination of flavonoid content in the herb of St. John's wort.
41. Grass motherwort, Latin name, family, external features chemical composition, application.
42. Hypericum perforatum, Latin name, family, external signs chemical composition, application.
43. Nettle dioecious, Latin name, family, external features, chemical composition, application.
44. Pharmacopoeial method of determining the amount of essential oils in herbal drugs *Melissa officinalis* (Method 1)
45. Vitamins, classification, General characteristics of vitamins.
46. Qualitative reactions for flavonoids extraction from medicinal plant raw material.
47. Pharmacopoeia method for determining tannins (Leventhal Method).
48. Quantitative determination of ascorbic acid content in rosehip fruit.
49. Pharmacopoeia method of quantitative determination of tropane alkaloids in raw plants of the nightshade family.
50. Chromatographic determination of ascorbic acid in rosehip fruit.

#### **Recommended literature on the discipline**

1. В.И. Чуешов, Е.В. Гладух, И.В. Сайко. Технология лекарств промышленного производства. Ч. 1. –Винница: Нова книга, 2014. -696 с.
2. В.И. Чуешов, Е.В. Гладух, И.В. Сайко. Технология лекарств промышленного производства. Ч. 2. –Винница: Нова книга, 2014. -664 с.
3. Aulton's Pharmaceutics The Design and Manufacture of Medicines -Michael E. Aulton BPharm PhD FAAPS 717с
4. Фармацевтическая технология: руководство к лабораторным занятиям. / Быков В.А., Демина Н.Б., Скاتков С.А., Анурова М.Н./ – М.: ГЭОТАР – Медиа, 2009.- 304 с.
5. Арзамасцев А.П. Фармацевтическая химия: учебное пособие, 3-е изд., испр. – М.: ГЭОТАР-Медиа, 2008. – 640 с.
6. Беликов В.Г. Фармацевтическая химия: учебное пособие, 2-е изд. – М.: МЕДпресс-информ, 2008. – 616 с.
7. Руководство к лабораторным занятиям по фармацевтической химии: Э.Н. Аксенова, О.П. Андрианова, А.П. Арзамасцев и др.–М.: Медицина, 2001. – 384 с.
8. Государственная фармакопея Республики Казахстан: первое издание. – Астана: Изд. дом «Жибек жолы», 2008. – 592 с.
9. Кодекс Республики Казахстан от 18.09.2009 № 193-IV "О здоровье народа и системе здравоохранения"



10. Багирова В.Л. Управление и экономика фармации. – Москва: Медицина, 2010.
11. Постановление Правительства Республики Казахстан от 16 марта 2016 года № 143 «Государственная программа развития здравоохранения Республики Казахстан «Денсаулық» на 2016 – 2019 годы».
12. Постановление Правительства Республики Казахстан от 02 октября 2002 года № 1081 года путем преобразования РККП «Центр лекарственных средств «Дарі-дәрмек».
13. Приказ Министра здравоохранения Республики Казахстан от 24 ноября 2009 года № 774 «Об утверждении Номенклатуры медицинских и фармацевтических специальностей»
14. Программа развития фармацевтической промышленности Республики Казахстан на 2010-2014 годы. Астана, 2010.
15. Косова И.В, Лоскутова Е.Е. Организация и экономика фармации. – Москва: Academia, 2004.
16. Лекарственное сырье растительного и животного происхождения. Фармакогнозия / Под. ред. Г.П. Яковлева. – СПб.: СпецЛит, 2013. – 846 с.: ил.
17. Муравьева Д.А., Самылина И.А., Яковлев Г.П. Фармакогнозия. Учебник. – 4-е изд., перераб. и доп. – М.: ОАО Издательство «Медицина», 2013. – 656 с.: ил.
18. Руководство к практическим занятиям по фармакогнозии: Учебное пособие / Под ред. И.А. Самылиной, А.А. Сорокиной. – М.: ООО «Медицинское информационное агентство», 2013. – 672 с.
19. Самылина И.А., Аносова О.Г. Фармакогнозия: учебное пособие: Атлас в 2 т. – М., 2015. – Т.1. – 192 с.; Т.2. – 384 с.
20. Самылина И.А., Ермакова В.А., Бобкова Н.В., Потанина О.Г. Фармакогнозия: учебное пособие: Атлас. – Т.3. – М., 2013. – 488 с.

**Additional:**

1. Государственная Фармакопея Республики Казахстан. – том 1 – Алматы. – Издательский дом: «Жибек жолы». – 2008. – 592 с.
2. Государственная Фармакопея Республики Казахстан. – том 2. – Алматы. – Издательский дом: «Жибек жолы». – 2009. – 792 с.
3. Машковский М.Д. Лекарственные средства. – 15-е изд., перераб., испр. и доп. – М.: РИА «Новая волна»: Издатель Умеренков, 2008. – 1206 с.: ил.
4. Практикум по фармакогнозии: Учеб. пособие для студ. Вузов / В.Н. Ковалев, Н.В. Попова, В.С. Кисличенко и др.: Под общ. ред. В.Н. Ковалева. – Харьков: Изд-во НФаУ: Золотые страницы: МТК – книга, 2014. – 512 с.: 615 ил.: 24 с. вкл.



5. Руководство к практическим занятиям по фармакогнозии: Анализ фасованной продукции: учеб. пособие / под ред. И.А. Самылиной. – М. ООО “Медицинское информационное агентство”, 2013. – 288 с.: ил.
6. Технология лекарств, под редакцией А.И. Тихонова, Харьков, «Оригинал» - 2006 г
7. Б.А. Сағындықова. Дәрілердің өндірістік технологиясы. - Шымкент, 2008. - 346 б.
8. Б.А. Сағындықова. Дәрілердің өндірістік технологиясы. - Алматы, 2011. - 346 б.
9. Р.Д. Ділбарханов, У.М. Датхаев, М.Е. Амантаева. Жакпа майлар. Алматы, 2005.– 123 б.
10. Менеджмент и маркетинг в фармации. Ч. II. Маркетинг в фармации: Учебник для студентов вузов. – 2-е изд. /З.Н. Мнушко, Н.М. Дихтярева; Под ред. З.Н. Мнушко. – Харьков: Изд-во НФаУ: «Золотые страницы», 2010. – 397с.
11. Ордабаева С.К. Анализ лекарственных препаратов, производных ароматических соединений: учебное пособие. - Шымкент.-2012-290 с.



ESSAY-PORTFOLIO

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(First name & surname of the APPLICANT)

**Section 1. The rationale for the selection of the University of KazNMU named after S. D. Asfendiyarov for graduate programs:** what attracts University KazNMU them. S. D. asfendiyarova in comparison with other universities; what scientific, educational, clinical, social achievements of the University caused the greatest interest; planned scientific and social activities in the University – in what direction or what research is planned to be carried out in the master's degree (up to 1 page).

**Section 2. Explanation of the choice of master's degree program in the specialty:** why this particular specialty and program are chosen, how the selected program is related to the present or future professional activity. This section describes the reasons and features of the choice of profession, characterizes the image of the future and reveals their own strategies to achieve career success (up to 1 page).

**Section 3. Achievements of the applicant:** publications in scientific journals and collections of works; participation in conferences and exhibitions; scientific grants; scientific diplomas and awards; average score in higher education diploma, other (the volume of the text if necessary).

Signature \_\_\_\_\_ of \_\_\_\_\_ applicant:

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Signature \_\_\_\_\_ name (full name)



Supplement 2

Rules for assessment of essay portfolio:

The maximum score for essay portfolio assessment is 100 points.

Each section of the essay portfolio is evaluated separately on a point system.

Sections 1, 2, "Justification of the choice of the University of KazNMU named after S. D. Asfendiyarov for studying in master's degree", "the explanation of the choice of the program of a magistracy in" is estimated at a maximum of 40 points; section 3 "the Achievements of the applicant" is estimated, up to a maximum of 20 points.

Check-list  
ASSESSMENT ESSAY PORTFOLIO

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(First name & surname of the APPLICANT)

Name of the specialty of the selected master's degree  
6M

Sections of the essay portfolio presentation	Amount of points
Section 1. The rationale for the selection of the University of KazNMU named after S. D. asfendiyarova for master's degree studying	
Section 2. Explanation of the choice of master's degree program	
Section 3. Achievements of the applicant	
<b>Total score</b>	

Comments, dissenting opinion of a member of the Commission (if any):

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С.Ж. АСФЕНДИЯРОВ АТЫНДАҒЫ  
ҚАЗАҚ ҰЛТТЫҚ МЕДИЦИНА УНИВЕРСИТЕТИ



КАЗАХСКИЙ НАЦИОНАЛЬНЫЙ МЕДИЦИНСКИЙ  
УНИВЕРСИТЕТ ИМЕНИ С.Д.АСФЕНДИЯРОВА

ASFENDIYAROV KAZAKH NATIONAL  
MEDICAL UNIVERSITY

Commission member

First name & surname \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_