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Kazakh Agrotechnical University named after S.Seifullin

Reviewed  
at a meeting  
of the University Academic Council  
Protocol № \_\_\_\_\_  
from « \_\_\_\_ » \_\_\_\_\_ 2019

AFFIRM  
Chairman of the Board  
JSC «Kazakh Agrotechnical  
University named after S.Seifullin  
A.K. Kurishbayev  
« \_\_\_\_ » \_\_\_\_\_ 2019



**EDUCATIONAL PROGRAM**  
**«Design»**

Code and classification of the field of education: **7M02 Arts and Humanities**  
Code and classification of training areas: **7M021 Art**  
Code in the International Standard Classification of Education: **0210**  
Qualification: **Master of Arts** in the educational program **«Design»**  
*Duration of study: (1,5 year)*

Nur-Sultan, 2019

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**Educational program «7M-0721 Design»**

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# **1 Educational program passport**

## **1.1 Purpose of the educational program «Design»:**

The development of students' personal qualities, the formation of general cultural, general professional and professional competencies, the development of skills for their implementation in professional activities.

Designing the educational environment of creative universities is one of the urgent problems. This problem is facing the Kazakhstan higher education system as part of the process of adaptation to rapidly changing conditions and the development of multi-level training for design master-degree students, as a condition for the formation of professional competencies of students. Modern education and design education in particular should not only influence the development of personality, but also consider a person as a core value. One of the main tasks of such an education is to ensure the most favorable conditions for self-development of the individual, development of creative potential.

The main objectives of the educational master's program are:

- to provide a full and high-quality scientific and pedagogical education, to form professional competence, to deepen the theoretical and practical as well as individual training of undergraduates in the field of technical regulation.
- ensure the development of fundamental courses guaranteeing professional mobility at the intersection of sciences;
- contribute to the acquisition of skills to participate in scientific events at various levels, the continuation of scientific training in doctoral studies.

## **2 General characteristics of the educational program**

The educational program in the specialty "Design" is developed in accordance with the National Qualifications Framework and professional standards. The program is agreed with the Dublin descriptors and the European Qualifications Framework, on the basis of the State Compulsory Standard for Higher Education, Master's program, approved by the Government of the Republic of Kazakhstan (dated October 31, 2018 No. 604). The Bologna process is a process of rapprochement and harmonization of the education systems of European countries in order to create a single European value space of higher education. The result of such a rapprochement, first of all, should be the possibility of lifelong education, updated and improved throughout life. This is especially true for a specialist designer working in a rapidly changing, developing technogenic world.

Education at the Department of Architecture and Design is concentrated on creative disciplines aimed at developing special thinking and individual vision of undergraduates. The emphasis in the training program for undergraduate designers is made mainly on its diversity: undergraduates are taught to develop critical thinking skills and subsequently apply them to solve the contradictions of the modern world. Here they deal not only with design issues, but also pay special attention to environmental problems and humanitarian crises. The main goal of the educational institution is to provide master-degree students with a high level of education, the transfer of knowledge that will make them true professionals in the field of architectural design. All this is achieved through ongoing training, research and mutual cooperation with industrial and architectural design

enterprises. In the training laboratories that form a single network, students study the effects of globalization and conduct their own research. The total number of loans for this educational program is 120 credits. Of these: the total number of credits for theoretical studies - 75 credits, research practice (all types of practices) - 9 credits, research work of a graduate student, including internships and master's theses - 24 credits, Registration and defense of a master's thesis - 12 credits.

### **3 Competency model (portrait) of a graduate student**

**3.1 The areas of professional activity** of graduates who have mastered the master's program are the subject-spatial environment of a person with its components (spaces of cities and settlements with architectural and design objects and engineering structures included in them, landscape and recreation complexes with their equipment and natural filling, interiors of buildings and structures with their equipment), equipped in accordance with the functional-technical and aesthetic requirements with the necessary design tools and systems (acoustics, coloristics, lighting, temperature and humidity conditions, information, design objects); specialized functional and artistic complexes for equipping the natural, urban and interior environment (information, communication, domestic comfort), expositional objects of various significance and type, as well as digital, verbal, graphic, volumetric and other models of these objects, necessary for finding methods and means of sustainable development of the environment.

**3.2 Types of professional activity** for which graduates who have mastered the master's program are preparing:

**project activities:**

– development and management of development projects for the creation, transformation, preservation and future development of the subject-spatial environment and its components, including innovative (conceptual), interdisciplinary and specialized in nature;

**research activities:**

– fundamental and applied research in the field of environmental design, environmental design, architectural and design education;

**communicative activity:**

- visualization and presentation of design solutions, protection of design materials;

**organizational and management activities:**

- Possession of modern management and marketing methods, planning, organizing and managing the work of creative teams, making consolidated decisions in the context of pluralism;

**critical and expert activity:**

- generalization and analysis of experience in the development and implementation of architectural and urban planning solutions, preparation of reviews on design and research proposals, regulatory materials for design, control of design documentation;

### **3.3 General competencies**

A graduate who has completed a master's program should have the following general educational competencies:

the ability to improve and develop their intellectual and cultural level;  
ability to freely use the state language and speak foreign languages at the level of using it as a means of business communication;  
ability to independently acquire using information technology and use in practice new knowledge and skills, including in new areas of knowledge not directly related to the field of activity;  
the ability to work with a computer as a means of information management, the ability to use information and computer technology as a tool in design and scientific research, work with information in global computer networks;  
willingness to demonstrate creativity, in-depth theoretical and practical knowledge, the desire to improve it through architectural and design reorganization, readiness for conceptual and performing work to improve the living conditions of a person and society.

### **3.4 Basic competencies**

A graduate who has completed a master's program should have the following basic competencies:

willingness to respectfully and carefully respect the cultural and historical traditions of society, nature, world and domestic art, design and architectural and urban planning heritage, to use knowledge of the theory and history of world and domestic plastic art, architecture and design in professional activities);

high motivation for architectural and design activities, professional responsibility and understanding of the role of architect-designer in the development of society, culture, science;

the ability to comprehend and shape architectural and design solutions by integrating fundamental and applied knowledge in the field of architectural and design activities;

the ability to synthesize generalized international experience in the proposed scientific concepts, correlated with the actual design situation);

the ability to conduct patent searches, use the legislative framework for the protection of intellectual property;

readiness to spread knowledge about architecture and design as a field of creative activity, to identify the creative potential of young people.

### **3.5 Professional competencies**

A graduate who has mastered the master's program should have professional competencies corresponding to the type of professional activity that the master's program is oriented to:

#### **project activities:**

readiness for complex architectural and design design of the main types and forms of the architectural environment for various purposes and nature;

the ability to effectively use materials, structures, technologies, engineering systems in the development of architectural and design solutions, conduct their economic feasibility, additional research related to the search for improvement of environmental, compositional, artistic, technological and other qualities of the subject-spatial environment.

#### **research activities:**

the ability to conduct comprehensive applied and fundamental research and justify conceptually new design ideas, solutions and strategies for project activities;

**artistic and aesthetic activity:**

knowledge of the basics of the world plastic culture, the ability to creatively accumulate knowledge in design activities and display design situations using art-graphic and plastic techniques;

**communicative activity:**

ability to present the results of design work and scientific research at a modern level;

**organizational and management activities:**

knowledge of the methods of administrative, managerial and communicative work, coordination of design and coordination, interaction with related specialists, public and state organizations;

**critical and expert activity:**

the ability to summarize, analyze and critically evaluate architectural and spatial objects, architectural and design solutions, draw conclusions, reviews and recommendations for their improvement.

#### **4 Base of professional practitioners**

Cooperation with employers takes place in several areas:

- joint work with the department to determine the competence of graduates in blocks of disciplines and the allocation of modules in working curricula;

- based on the competence of graduates, a list of elective disciplines for creating CEDs (catalogs of elective disciplines) is determined;

- provision of practice bases and conclusion of cooperation agreements; The role of production practice bases is to give future masters solid knowledge in the field of scientific research. In addition, to develop practical skills in acquiring practical skills in project, research and educational work, managerial skills, the ability to work with specialists in related fields, readiness for social and cultural dialogue, innovativeness and initiative, contribute to mastery of the master's knowledge base in scientific research and methods of its implementation, to form a creative style of thinking and lay the foundations of the scientific organization of research work.

Professional practice is part of the practical training of undergraduates for research activities and helps them master the basics of research; the formation of a creative style of thinking; improving knowledge on the methodology of scientific research; the formation of ideas about the theory of solving research problems.

Professional practice should complement the theoretical knowledge of students with practical ones that will be used when writing a master's thesis.

The following leading architectural schools and design firms located in Astana are the bases for passing professional practices (all types of practices): LLP «ВЛ»; LLP «Астана проект»; LLP «Бюро Арх»; LLP «Индиго»; LLP «Архипросто»; LLP «Инторг»; LLP «ПСК ППК», LLP «Азия 3Д Дизайн»; LLP «АрхКБ», LLP «Колибри Астана» and others.

The purpose of the discipline - «Pedagogical practice», is to give future masters solid knowledge in the field of pedagogy and psychology. In addition, to develop pedagogical skills, seminars and lectures.

Pedagogical practice is part of the practical preparation of students for research activities and helps them master the basics of research; the formation of a creative style of thinking; improving knowledge on the methodology of scientific research; the formation of ideas about the theory of solving inventive problems. Pedagogical practice should complement the theoretical knowledge of students with practical knowledge that will be used when writing a master's thesis.

As a result of passing pedagogical practice, the undergraduate must:

- learn the general rules for conducting all types of classroom activities;
- learn to independently monitor the knowledge of students;
- plan study time and use it effectively

At the end of the practice, the student must submit to the supervisor a report on the practice in which he is obliged to note: types and forms of classes, effectiveness. - the ability to improve and develop their intellectual and cultural level;

- the ability to self-study new research methods, to change the scientific and scientific-industrial profile of their professional activities;

- ability to freely use the Russian language and speak a foreign language at the level of using it as a means of business communication);

- using in practice skills in organizing research, design and scientific-production work, shows leadership in team management, the ability to influence the formation of team goals, influence its socio-psychological climate, evaluate the quality of performance;

- the ability to take the initiative, including in situations of risk, take full responsibility, resolve problem situations;

- readiness for social mobility, for adaptation to new situations, reassessment of accumulated experience, analysis of one's capabilities, self-criticism, communication in scientific, industrial and social spheres of activity;

- the readiness to respectfully and carefully respect the cultural and historical traditions of society, nature, world and domestic art, design and architectural and urban planning heritage, to use knowledge of the theory and history of world and domestic plastic art, architecture and design in professional activities;

- possession of high motivation for architectural and design activities, professional responsibility and understanding of the role of architect-designer in the development of society, culture, science;

- the ability to independently acquire using information technology and use in practice new knowledge and skills, including in new areas of knowledge that are not directly related to the field of activity;

- the ability to work with a computer as a means of managing project information, the ability to use information and computer technology as a tool in design and scientific research, work with information in global computer networks;

- a willingness to demonstrate creativity, in-depth theoretical and practical knowledge, the ability to realize one's professional role in the formation of a subject-spatial environment, the ability to critically look at the current state of the environment, the desire to improve it through architectural and design reorganization, and readiness for conceptual and performing work to improve the living conditions of man and society.

- the ability to effectively use materials, structures, technologies, engineering systems in the development of architectural and design solutions, carry out their economic



feasibility, additional research related to the search for improving environmental, compositional, artistic, technological and other qualities of the subject-spatial environment.

- the ability to conduct comprehensive applied and fundamental research and justify conceptually new design ideas, solutions and strategies for project activities;

- the ability to synthesize generalized international experience in the proposed scientific concepts, correlated with the actual design situation;

- the ability to interpret the results of applied research in the form of generalized design models;

- the ability to plan, solve and manage the solution of research problems of architectural and design activities in accordance with specialization;

- the ability to professionally present and justify the results of research and development, to develop ways of their implementation in the design and implementation process;

- the ability to conduct a patent search, use the legislative framework for the protection of intellectual property, the ability to analytically study the relevance of the proposed and adopted architectural and design decisions from the standpoint of their expediency, constructive potential and artistic quality;

- knowledge of the basics of the world plastic culture, the ability to creatively accumulate knowledge in design activities and display design situations using art-graphic and plastic techniques,

- the ability to aesthetically interpret utilitarian and practical parameters, objects and forms of the environment and transform pragmatic models of environmental complexes into their emotional and artistic equivalent;

- ability to present the results of design work and scientific research at the modern level with the preparation of presentations, demonstrations, reports, conclusions, abstracts, publications and the presentation of the results to professional and academic communities, governing bodies, customers and the public;

- proficiency in administrative, managerial and communicative work methods, coordination of design and coordination work, interaction with related specialists, public and state organizations;

- the ability to develop a strategy for the creative team in specific market conditions, to monitor the situation;

- the ability to determine the legal format of relations with the customer in the implementation of design and scientific activities, to defend the interests of the creative team ;

- the ability to logically build the sequence of collective activity in the process of interaction with coordinating authorities;

- the ability to summarize, analyze and critically evaluate architectural and spatial objects, architectural and design solutions, draw conclusions, reviews and recommendations for their improvement.

## 5 The structure of the master's education program in the specialized direction

| №<br>п/п | The name of the cycles of disciplines<br>and activities  | with a typical training period of 1.5 years |                     |
|----------|--|---|---------------------|
|          |  | in academic hours                           | in academic credits |
| 1        | 2  | 5   | 6                   |
| 1.       | Theoretical training   | 1500  | 50                  |
| 1.1      | The cycle of basic disciplines (BD)  | 450   | 15                  |
| 1)       | University component (UC)  | 180   | 6                   |
|          | including:   |   |                     |
|          | Foreign language (professional)  | 60  | 2                   |
|          | Management   | 60  | 2                   |
|          | Psychology of management   | 60  | 2                   |
| 2)       | Optional Component (OC)  | 270   | 9                   |
| 2.1      | Information technologies in design   | 6   | 1                   |
| 2.2      | Fundamentals of Urbanism and Sustainable Development   | 5   | 2                   |
| 1.2      | The cycle of core disciplines (CD)   | 1350  | 45                  |
| 1)       | University component (UC)  |   |                     |
| 1.1      | Modern trends in architecture and design   | 150   | 5                   |
| 1.2      | Professional activity of an architect and architectural designer   | 180   | 6                   |
| 2)       | Optional Component (OC)  |   |                     |
| 2.1      | Materials science and technology in the design of the architectural environment                                      | 180   | 6                   |
| 2.2      | Design Methods of research results   | 180   | 6                   |
| 3)       | Internship   | 600   | 20                  |
| 2        | Experimental research work   | 540   | 18                  |
| 1)       | Experimental research work of a graduate student, including internships and the implementation of a master's project | 540   | 18                  |
| 3        | Additional types of training   |   |                     |

|    |  |      |    |
|----|--|------|----|
| 4  | Final Attestation                        | 360  | 12 |
| 1) | Design and defense of a master's project | 360  | 12 |
|    | Total                                    | 2700 | 90 |



Рабочий учебный план Образовательной программы "Дизайн" по направлению 7В021 Искусство, период обучения 2019-2021 гг. (1,5 года)

| Шифр модуля                         | Наименование модуля   | Цикл дисциплины | Компонент дисциплины | Код дисциплины | Наименование дисциплины   | Кредиты             | Контроль по |                          |                          | Объем в часах |            |              |            |            | Распре   |           |           |           |           |    |
|-------------------------------------|---|-----------------|----------------------|----------------|---|---------------------|-------------|--------------------------|--------------------------|---------------|------------|--------------|------------|------------|--|-----------|-----------|-----------|-----------|----|
|                                     |   |                 |                      |                |   |                     | Экзамены    | Дифференцированный зачет | Дифференцированный зачет | Всего         | в т.ч.     |              | СРМП       | СРМ        | Количество недель в семестре/триместре/ квартале |           |           |           |           |    |
|                                     |   |                 |                      |                |   |                     |             |                          |                          |               | Лекции     | Практические |            |            | 1  | 2         | 3         | 4         | 5         |    |
|                                     |   |                 |                      |                |   |                     |             |                          |                          |               |            |              |            |            |  |           |           |           |           |    |
| <b>Цикл базовых дисциплин</b>       |   |                 |                      |                |   |                     |             |                          |                          |               |            |              |            |            |  |           |           |           |           |    |
| 1                                   |   | БД              | ВК                   | YaP 7101       | Иностранный язык (профессиональный)                                       | 2                   | 1           |                          |                          | 60            |            | 20           | 8          | 32         | 2  |           |           |           |           |    |
| 2                                   |   | БД              | ВК                   | Men 7102       | Менеджмент  | 2                   | 1           |                          |                          | 60            | 20         |              | 8          | 32         | 2  |           |           |           |           |    |
| 3                                   |   | БД              | ВК                   | PsU 7103       | Психология управления   | 2                   | 1           |                          |                          | 60            | 20         |              | 8          | 32         | 2  |           |           |           |           |    |
| 4                                   | Научные аспекты организации дизайна архитектурной среды   | БД              | КВ                   | 7304 ITD       | Информационные технологии в дизайне                                       | 6                   | 3           |                          |                          | 180           | 30         | 30           | 24         | 96         |  |           | 6         |           |           |    |
| 5                                   |   | БД              | КВ                   | 7205 OUUR      | Основы урбанистики и устойчивого развития                                 | 5                   | 2           |                          |                          | 150           | 20         | 30           | 20         | 80         |  | 5         |           |           |           |    |
|                                     |   |                 |                      |                |   | <b>Итого по БД:</b> | <b>17</b>   |                          |                          |               | <b>510</b> | <b>90</b>    | <b>80</b>  | <b>68</b>  | <b>272</b>                                       | <b>6</b>  | <b>5</b>  | <b>6</b>  |           |    |
|                                     |   |                 |                      |                | <b>БД-ВК</b>  | <b>6</b>            |             |                          |                          | <b>180</b>    | <b>40</b>  | <b>20</b>    | <b>24</b>  | <b>96</b>  | <b>6</b>   |           |           |           |           |    |
|                                     |   |                 |                      |                | <b>БД-КВ</b>  | <b>11</b>           |             |                          |                          | <b>330</b>    | <b>50</b>  | <b>60</b>    | <b>44</b>  | <b>176</b> |  | <b>5</b>  | <b>6</b>  |           |           |    |
| <b>Цикл профилирующих дисциплин</b> |   |                 |                      |                |   |                     |             |                          |                          |               |            |              |            |            |  |           |           |           |           |    |
| 6                                   | Теоретические аспекты дизайна   | ПД              | ВК                   | 7101 STRAD     | Совр.тенденции развития архитектуры и дизайна                             | 5                   | 1           |                          |                          | 150           | 30         | 20           | 20         | 80         | 5  |           |           |           |           |    |
| 7                                   |   | ПД              | ВК                   | 7102 PDADAS    | Профессиональная деятельность архитектора и дизайнера архитектурной среды | 6                   | 1           |                          |                          | 180           | 30         | 30           | 24         | 96         | 6  |           |           |           |           |    |
| 8                                   | Практические аспекты дизайна  | ПД              | КВ                   | 7203 MTDAS     | Материаловедение и технологии в дизайне архитектурной среды               | 6                   | 2           |                          |                          | 180           | 30         | 30           | 24         | 96         |  | 6         |           |           |           |    |
| 9                                   |   | ПД              | КВ                   | 7304 MORI      | Методы оформления результатов исследований                                | 6                   | 2           |                          |                          | 180           | 30         | 30           | 24         | 96         |  |           | 6         |           |           |    |
|                                     |   |                 |                      |                |   | 6                   | 3           |                          |                          | 180           |            | 180          |            |            |  |           |           | 6         |           |    |
|                                     |   |                 |                      |                |   | 14                  | 4           |                          |                          | 420           |            | 420          |            |            |  |           |           |           | 14        |    |
|                                     |   |                 |                      |                | <b>Итого по ПД:</b>   | <b>43</b>           |             |                          |                          | <b>1290</b>   | <b>120</b> | <b>710</b>   | <b>92</b>  | <b>368</b> | <b>11</b>  | <b>6</b>  | <b>12</b> | <b>14</b> |           |    |
|                                     |   |                 |                      |                | <b>ПД-ВК</b>  | <b>11</b>           |             |                          |                          | <b>330</b>    | <b>60</b>  | <b>50</b>    | <b>44</b>  | <b>176</b> | <b>11</b>  |           |           |           |           |    |
|                                     |   |                 |                      |                | <b>ПД-КВ</b>  | <b>32</b>           |             |                          |                          | <b>960</b>    | <b>60</b>  | <b>660</b>   | <b>48</b>  | <b>192</b> |  | <b>6</b>  | <b>12</b> | <b>14</b> |           |    |
|                                     |   |                 |                      |                | <b>Итого теоретического обучения:</b>                                     | <b>60</b>           |             |                          |                          | <b>1800</b>   | <b>210</b> | <b>790</b>   | <b>160</b> | <b>640</b> | <b>17</b>  | <b>11</b> | <b>18</b> | <b>14</b> |           |    |
| ЭИР                                 | Экспериментально-исследовательская работа магистранта, включая прохождение стажировки и выполнение магистерского проекта (ЭИРМ) |                 |                      |                |   | 18                  |             | 1, 2, 3,4,5              |                          | 540           |            | 540          |            |            | 3  | 9         | 2         | 2         | 2         |    |
| ИА                                  | <b>Итоговая аттестация (ИА)</b>   |                 |                      |                |   |                     |             |                          |                          |               |            |              |            |            |  |           |           |           |           |    |
|                                     | Оформление и защита магистерского проекта (ОиЗМП)   |                 |                      |                |   | 12                  |             | 5                        |                          | 360           |            | 360          |            |            |  |           |           |           |           | 12 |
|                                     |   |                 |                      |                | <b>Итого:</b>   | <b>90</b>           |             |                          |                          | <b>2700</b>   | <b>210</b> | <b>1690</b>  | <b>160</b> | <b>640</b> | <b>20</b>  | <b>20</b> | <b>20</b> | <b>16</b> | <b>14</b> |    |

### Appendix 3. Description of the disciplines of compulsory and university components

|   |  |
|---|--|
| <b>1. Basic information about the discipline:</b> |  |
| Name of the discipline                            | <b>Management</b>  |
| <b>2. Amount of credits</b>                       | <b>2</b>   |
| <b>3. Prerequisites:</b>                          | Design Economics   |
| <b>4. Post requisites:</b>                        | Professional activity  |
| <b>5. Competencies:</b>                           | <p><b>As a result of studying this discipline, undergraduates should:</b> Know: the latest trends in the development of management in modern conditions; relationship «organization-external environment»; designing adaptive organizations in the face of change and innovation; the dynamics of organizational behavior, changes in the nature of leadership in modern conditions; modern approaches to motivation, identification of types of teams in organizations. be able to: analyze the relationship of the organization with a changing external environment; carry out highly effective planning in a rapidly changing environment; distinguish between modern command and network structures; recognize the characteristics of effective leaders; develop integrated quality management concepts</p> <p>own skills: effective crisis management; ensuring the interaction of corporate culture and the environment; developing three levels of organizational strategy; the use of models and methods that contribute to the adoption of effective decisions in modern organizations; management of multicultural teams, application of modern approaches to motivation, communication in crisis situations, monitoring and integrated quality management.</p> |
| <b>6. Course Author</b>                           | Nukhesheva A.Zh., Sautpaeva Sh.E., Balkibaeva A.M.   |
| <b>7. Main literature</b>                         | <ol style="list-style-type: none"> <li>1. Виханский О.С., Наумов А.И. Менеджмент: Учебник. - 2-е изд. - М. «Экономистъ», 2014.</li> <li>2. Дафт Р. Менеджмент. 8-е изд./пер. с англ. под ред. С.К.Мордовина. - СПб.: Питер, 2014.</li> <li>3. Карбетова З.Р., Карбетова Ш.Р. Менеджмент: Учебник – Алматы: ТОО «Жания-полиграф», 2014.</li> <li>4. Акмаева Р.И. Менеджмент: учебник – М.; Берлин: Директ-Медиа, 2018.</li> <li>5. Герчикова И Н.Менеджмент: учебник – М.; Юнити-Дана, 2015.</li> <li>6. М.Мескон и др. Основы менеджмента. - М.; Издательство «Дело, 1997</li> <li>7. П. Друкер. Менеджмент. - М.; Изд. Дом «Вильямс», 2010</li> </ol>   |
| <b>8. The content of the discipline:</b>          | New management competencies in the context of globalization and new technologies. External environment and corporate culture. Managing a   |

high-performance corporate culture. Factors of the international business environment. Modern problems of entrepreneurship development in Kazakhstan. Types of planning. Fundamental company strategies. Management decision making models. Design of adaptive organizations: their advantages and disadvantages. Model of planned organizational change. Issues of using human resources in modern conditions. The dynamics of organizational behavior. Work teams. Leadership in modern conditions. Power and influence. Motivational theory of reinforcement. Organizational control as a key management function.

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| <b>2. Main information on discipline:</b> |   |
| Name of discipline                        | <b>Foreign language (professional)</b>  |
| <b>2. Amount of credits</b>               | <b>5 (2)</b>  |
| <b>3. Prerequisites:</b>                  | Foreign language (bachelor)<br>English for special purposes<br>Professionally-oriented foreign language   |
| <b>4. Post requisites:</b>                | Subjects in the specialty in English, English for academic purposes   |
| <b>5. Competencies:</b>                   | As a result of studying the discipline, the undergraduate will know the functional and stylistic characteristics of the scientific presentation of the material in the studied foreign language, general scientific terminology and the terminological sublanguage of the corresponding specialty in the foreign language, basics of business correspondence in the framework of international cooperation.<br>As a result of the training, the undergraduate will be free to read, translate original literature on his chosen specialty, followed by analysis, interpretation and evaluation of the information extracted, explicate in writing (abstract, abstract, resume) scientific information, participate in professional discussions, scientific debates, debates, discussions for «round table», to make a presentation of scientific research (at seminars, conferences, symposia, forums), to listen to and understand public speeches in direct ennoy and mediated communication (lectures, reports, television and internet programs); |
| <b>6. Course Author</b>                   | Department of Foreign Languages   |
| <b>7. Main literature</b>                 | 1 Belousova A.R., Melchina O.P. Английский язык для студентов сельскохозяйственных вузов, 2010.<br>2.Principles of Management, By: Mason Carpenter, Talya Bauer, Berrin Erdogan and Jeremy Short, Version: 2.0 Pub Date: March 2013<br>3.Team of Teams: New Rules of Engagement for a Complex World Hardcover – May 12, 2015  |
| <b>8. Discipline content:</b>             |   |
| 1. What is agriculture?                   |   |
| 2. Subject knowledge                      |   |
| 3. Tools and equipment                    |   |

4. Functions
5. What needs to be read?
6. Bank of Authentic Materials
7. Work skills
8. Identification of workplace culture
9. Identify Target Events
10. Organizational structure
11. Job descriptions
12. Job Interview
13. To-do lists
14. Organization of fairs and conferences
15. Change of work of the future master.

| <b>3. Main information on discipline:</b> |  |
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| Name of discipline                        | <b>Psychology of management</b>  |
| <b>2 Ammount of credits</b>               | <b>2</b>   |
| <b>3. Prerequisites:</b>                  | Philosophy, Sociology, General Psychology,   |
| <b>4. Post requisites:</b>                | Psychological support of management activities; methods of working with functional states in activities in activities manager  |
| <b>5. Competencies:</b>                   | <p><b>As a result of mastering the discipline, the undergraduate must:</b></p> <p>Know:</p> <ol style="list-style-type: none"> <li>1. socio-psychological content and structure of management activities; and management functions; psychological characteristics of the personality of the leader; psychological patterns of joint activities to achieve organizational goals;</li> <li>2. basic approaches to solving managerial problems and the rules for their solution in the conditions of real operating production structures, methods of working with functional states in the activities of the manager, optimization of managerial processes;</li> </ol> <p>Be able to:</p> <ol style="list-style-type: none"> <li>1. apply the knowledge gained during the course; operate freely with psychological concepts; use psychological knowledge in explaining phenomena in the field of management psychology and group processes.</li> <li>2. to analyze the professional activities of the manager in terms of ensuring its psychological effectiveness; apply methods, techniques aimed at developing managerial professionalism personnel, manager's personality and increasing the effectiveness of the management system;</li> </ol> <p>Own:</p> |



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|                               | <p>1.professional skills of psychological analysis of the manager's professional activities, labor phenomena and joint activities to achieve organizational goals;</p> <p>2.practical skills of psychological support of management activities; methods of working with functional states in activities</p> <p>manager skills of using developing technologies aimed at improving the professionalism of managerial personnel and team leadership;</p> <p>To be competent in the willingness to lead a team in the field of their professional activity, tolerantly perceiving social, ethical, confessional and cultural differences.</p>   |
| <b>6. Course Author</b>       | Zhusupova A.A., Sagalieva J.K., Shakhmetova D.S., Seylkhan G.I.  |
| <b>7. Main literature</b>     | <p>1.Столяренко А.Д. «Психология управления» Ростов – на – Дону «Феникс» 2007.</p> <p>2.Столяренко А.Д. «Психология делового общения и управления» Ростов – на – Дону «Феникс» 2008.</p> <p>3.Волкогонова О.Д., Зуб А.Т. «Управленческая психология» Москва ИД «Форум» - Инфра – М 2007.</p> <p>4.Немов Р.С. «Психология» Москва изд.центр «Владос» 2010.</p>  |
| <b>8. Discipline content:</b> | <p>ntroduction to management psychology. The conceptual apparatus of the psychology of management. Leader and team. Conflicts in the workforce. Management communication. Decision making technology. The concept of subject and control object. Leader and leader. Psychology of order. Personality as a subject and object of management. Democratic leadership style and its features. Psychology of criticism. Psychotypes of subjects of communication. The psychological technique of persuasive influence. Psychological problems of selection of leading cadres. Psychological problems of training and retraining of leading personnel. Staff recruitment and placement. Rotation</p> |

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| <b>4. Main information on discipline:</b> |   |
| Name of discipline                        | <b>Modern trends in the development of architecture and design</b>  |
| <b>2. Ammount of credits</b>              | <b>5</b>  |
| <b>3. Prerequisites:</b>                  | «Fundamentals of Design I», «Modern Design»   |
| <b>4. Post requisites:</b>                | «Art design in the formation of the environment», Master's thesis   |
| <b>5. Competencies:</b>                   | <p>the ability to comprehend and shape architectural and design solutions by integrating fundamental and applied knowledge in the field of architectural and design activities;</p> <p>the ability to synthesize generalized international experience in the proposed scientific concepts, correlated with the actual design situation;</p> |
| <b>6. Course Author</b>                   | Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.   |

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| <b>7. Main literature</b> | Агранович-Пономарева Е.С. Справочное издание «Архитектурный дизайн» - Ростов н/Д: Феникс, 2009. 342с.<br>Иодо И.А. Градостроительство и территориальная планировка»: учебн. пос. для вузов - Ростов н/Д: Феникс, 2008. 285с. |
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**8. Discipline content:** Modern experience and general trends in the development of the latest architecture, urban planning and design. Architectural and methodological concepts in the framework of world culture. Architectural and methodological concepts in the framework of world culture Philosophical, methodological foundations and problems of architectural, urban planning, design, landscape, restoration activities. Innovative methods for the formation of objects of architecture, urban planning and design in the context of the paradigms of subject design, architectural design of the subject-spatial and information environment of human life. Modern trends in the development of architecture and urban planning. The development of world and domestic architectural process today.

Modern urban planning concepts. Problems of development of large and large cities and ways to overcome them. The role of medium and small urban settlements in the formation of the concept of sustainable development in architecture and urban planning. The influence of socio-economic, natural landscape and environmental factors on the processes of urban development. New types of residential, public, industrial buildings and complexes, innovations in the planning and development of settlement territories. Problems of transport services and pedestrian organization of environmental facilities, innovative solutions in architecture, building structures, engineering and technical equipment of urban transport infrastructure. Architectural design - as a theoretical and practical basis for creating an optimally balanced living space for people at all levels - from the interior of a separate building to the space of the settlement as a whole. Features of the formation of a modern urban interior. Modern trends in the formation and development of the color space of urban interiors. Ecodesign and the problems of the interaction of natural and urban elements in the formation of the architectural and spatial environment. . Landscape design as a concept of sustainable development in architecture. Information design as an important component of the modern architectural environment. Visual arts as a means of artistic formation of architectural objects and the architectural environment.

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| <b>5. Main information on discipline:</b> |  |
| Name of discipline                        | <b>Professional activity of an architect and architectural designer</b>  |
| <b>2. Ammount of credits</b>              | <b>5</b>   |
| <b>3. Prerequisites:</b>                  | Designing objects of profile design; Elements and processes of profile design  |
| <b>4. Post requisites:</b>                | Art design in shaping the environment; Interior design   |
| <b>5. Competencies:</b>                   | To know - the basics of theory and practice in the field of architectural and design, spatial and subject formations;<br>be able to - to express, describe and evaluate the advantages and disadvantages of design architectural and design works and find ways to improve them;<br>to possess the skills of critical analysis of architectural design work and the skills of finding ways to improve them |

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| <b>6. Course Author</b>       | Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.   |
| <b>7. Main literature</b>     | <p>1.Тетиор А.Н. Социальные и экологические основы архитектурного проектирования: учеб. пособие для студентов вузов по спец. «Архитектура» М.: Изд. центр «Акад.», 2009</p> <p>2.Рочегова Н.А., Барчугова Е.В. Основы архитектурной композиции. Курс виртуального моделирования: учеб. пособие для студентов вузов по направлению «Архитектура» М.: Изд. центр «Акад.», 2010</p> <p>3.Быстрова Т.Ю. Вещь. Форма. Стиль: Введение в философию дизайна / Т.Ю. Быстрова - Екатеринбург : Издательство Уральского университета, 2001.-288 с.</p> <p>4.Ефимов А.В. Дизайн архитектурной среды: учеб. для вузов – М.: Архитектура – С, 2004. – 504 с.</p> <p>5.Проектирование современных высотных зданий:/пер. с китайского Сюй Пэйфу и др./ - М.: Изд. Ассоциация строительных вузов, 2008, 467с.</p> <p>6.Мосин В. Визуальная коммуникация в городской среде /Империя света-2008. № 30-с.14-19</p> |
| <b>8. Discipline content:</b> | Collection and analysis of initial data for design, preparation of technical specifications for design, an agreement with the customer; the basics of the working and creative process in the design. Moral and ethical standards of behavior of a practicing architect. Copyright for architectural works. State legislative documents for design. Marketing of architectural activities in domestic and foreign practice. International and domestic standards of professionalism in architectural practice.  |

#### Appendix 4. Description of optional component disciplines

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| <b>6. Main information on discipline:</b> |   |
| Name of discipline                        | <b>Information technology in design</b>   |
| <b>2. Amount of credits</b>               | <b>5</b>  |
| <b>3. Prerequisites:</b>                  | Computer graphics; Information and communication technology; Three-dimensional modeling of the architectural environment  |
| <b>4. Post requisites:</b>                | Master's dissertation   |
| <b>5. Competencies:</b>                   | <p>must possess:</p> <p>the ability to improve and develop their intellectual and cultural level; the ability to independently acquire using information technology and use in practice new knowledge and skills, including in new areas of knowledge not directly related to the field of activity; the ability to work with a computer as a means of information management, the ability to use information and computer technology as a tool in design and scientific research, work with information in global computer networks.</p> |
| <b>6. Course Author</b>                   | Candidate of Technical Sciences, Associate Professor  |

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|  | Dzhanakhmetov U.K.   |
| <b>7. Main literature</b>  | Рылько М. А. Основы компьютерного проектирования в системе ArchiCAD : учеб. пособие М. : АСВ, 2008 |
| <b>8. Discipline content;</b> Modern digital tools for building forms and constructing. Basic design methods by digital modeling. The principles of shaping and methods of their analysis from the point of view of the development of digital technologies. Examples of application of computer-aided design methods in various directions. |  |

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| <b>7. Basic information about the discipline:</b>  |   |
| Name of discipline   | <b>Fundamentals of Urbanism and Sustainable Development</b>   |
| <b>2. Amount of credits</b>  | <b>5</b>  |
| <b>3. Prerequisites:</b>   | Regional features of architectural design   |
| <b>4. Post requisites:</b>   | Master's dissertation   |
| <b>5. Competencies:</b>  | must possess: the ability in the design of objects and systems of the architectural environment for the creative synthesis of architectural and spatial elements that ensure the optimal organization of environmental activity, and its modern design (technological) equipment; ); the ability to effectively use materials, structures, technologies, engineering systems in the development of architectural and design solutions, conduct their economic feasibility, additional research related to the search for improving environmental, compositional, artistic, technological and other qualities of the subject-spatial environment |
| <b>6. Course Author</b>  | Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.   |
| <b>7. Main literature</b>  | Ахременко, С.А. Особенности градостроительного проектирования: учебное пособие / С.А. Ахременко, Д.А. Викторов. - М.: Издательство АСВ, 2014. - 151 с.: ил.;<br>Климов Д.В. Основы проектирования урбанизированных комплексов: монография / Д.В. Климов. - М.: Издательство АСВ, 2013. - 151 с. : ил.   |
| <b>8. Discipline content;</b> The basics of urban studies. Modern urban theory. The concept of sustainable development and its evolution. Urban sociology. The formation of a sustainable landscape of modern cities. Improving the sustainability of modern cities. Urban development scenarios: growth and decrease. Waning cities and single-industry towns. Cultural landscape. «Creative city». |   |

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| <b>8. Basic information about the discipline:</b> |                             |
| Name of the discipline                            | <b>Research methodology</b> |
| <b>2. Amount of credits</b>                       | <b>5</b>                    |
| <b>3. Prerequisites:</b>                          | Research Methodology        |
| <b>4. Post requisites:</b>                        | Master's dissertation       |

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| <b>5. Competencies:</b>   | <p>Know: the theoretical foundations of the methodology of scientific research in the professional field; modern methods and techniques of researching professional activities;</p> <p>Be able to: use the knowledge about research in order to develop their intellectual and cultural level;</p> <p>Own: modern technical means<br/>modern techniques and research methods in the field of design of the architectural environment</p> |
| <b>6. Course Author</b>   | Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.  |
| <b>7. Main literature</b>   | <p>Дмитриев М. Н. Методология и методы исследований в экономике: учеб. пособие Н.Новгород: ННГАСУ, 2014</p> <p>Кузнецов И.Н. Научное исследование: методика проведения и оформ. М.: Изд. - торговая корпорация «Дашков и К», 2007</p>  |
| <b>8. The content of the discipline:</b> The concept and specifics of the methodology of scientific research. Method and technique in scientific research. Methodological concept, structure and content of the research process. Preparation and design of the text of the study. Preparation and defense of the dissertation. |  |

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| <b>9. Basic information about the discipline:</b> |   |
| Name of the discipline                            | <b>Materials science and technology in the design of the architectural environment</b>  |
| <b>2. Amount of credits</b>                       | <b>5</b>  |
| <b>3. Prerequisites:</b>                          | Modern materials in design  |
| <b>4. Post requisites:</b>                        | Master's dissertation   |
| <b>5. Competencies:</b>                           | <p>As a result of mastering the discipline, the student must know:</p> <ol style="list-style-type: none"> <li>1. The main directions of development of the industry of building materials and products and methods for improving their quality and effectiveness;</li> <li>2. Technical and economic importance of saving material, labor and energy resources in the manufacture and use of building materials and products;</li> <li>3. The relationship of the composition, structure and properties of the material, the principles of evaluating its quality indicators;</li> <li>4. The determining influence of the quality of the material and the product on the durability and reliability of the building structure, methods of corrosion protection;</li> <li>5. Measures to protect the environment and the production of environmentally friendly materials and products.</li> </ol> <p>Be able to:</p> <ol style="list-style-type: none"> <li>1. To analyze the technological processes of production</li> </ol> |

of building materials and products;  
 2. To establish requirements for the material according to the nomenclature of quality indicators: purpose, manufacturability, operational properties, environmental friendliness;  
 3. Select the optimal material for the given thermophysical and mechanical properties;  
 Own:  
 1. Methods for assessing the quality of building materials and the choice of technology;  
 2. Research methods for the properties of building materials.

**6. Course Author**

**7. Main literature**

1. Байер В.Е. Материаловедение для архитекторов, реставраторов, дизайнеров: Учебное пособие М.: Архитектура - С 2012. - 264 с.  
 2. Строительное материаловедение: учебное пособие /Под общей редакцией В.А. Невского. – Ростов н/Д.: Феникс, 2007. – 571 с.  
 3. Строительное материаловедение: учебное пособие /Под общей редакцией В.А. Невского. – Ростов н/Д.: Феникс, 2010. – 588 с.

**4. Уолтон С. 1000 идей по оформлению интерьера: Как сделать ваш дом красивым / С. Уолтон. – М.: РАДУГА, 1997. – 256 с.**

**8. The content of the discipline:** Introduction. Classification of building materials. The concept of standardization of building materials and products. Fundamentals of building materials science. Rocks, industrial waste - raw material base for the production of building materials. Products based on mineral melts. Ceramic materials. Metallic materials. Inorganic binders. Materials based on inorganic binders. Wood building materials and products. Materials and products based on organic raw materials. Polymer materials. Appointment, basic requirements.

Head of DAA

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Head of Educational Planning Department and postgraduate education

Soltan G.Z.

Dean of the Faculty of Land resources Management architecture and design

Ermekov F.K.

Head of the Department of Architecture and Design

Isina A.Z.