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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: (2 years)*

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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 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 should 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;

**teaching activities:**

– the creation, justification and implementation of socially significant models and programs of architectural and design education, the development of innovative methods and means of professional education.

### **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;

#### **teaching activities:**

the ability to transfer architectural and design experience and the implementation of pedagogical activities at various stages of preparation and stages of professional retraining;

#### **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 QEDs (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 «Интерг»; 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;
- the ability to comprehensively analyze and critically evaluate the results of scientific research, draw up relevant reviews and reviews;

- the ability to transfer architectural and design experience and the implementation of pedagogical activities at various stages of pre-university, university training and stages of professional retraining;

- ability to research and develop innovative.

methods and copyright courses in the field of architectural and design pedagogy, to analytical research and implementation of teaching methods of leading domestic and foreign architectural and design schools;

- willingness to use in pedagogical activity the laws of the aesthetic organization of objects and phenomena of the architectural and design environment: the principles of composition and harmonization of architectural and design solutions, the laws of the color organization of the environment;

-willingness to disseminate knowledge about architecture and design as a field of creative activity, to identify the creative potential of pre-university and university youth.

Research practice is carried out in educational and lecture halls, computer laboratories of the department using scientific equipment, computer technology and specialized software.

As a result of passing the end-to-end practice program, the undergraduate must

- to learn the general principles of research activity;

- learn to independently formulate research objectives.

At the end of the practice, the student must provide the leader with a report on the practice in which he is obliged to show: the ability to think logically and creatively; substantiate reasonably the choice of topic and the tasks to be solved; show knowledge of scientific methods for their research. The practice is carried out in scientific laboratories using scientific equipment, computers and specialized software. The process of studying the discipline is aimed at the formation of the following competencies:

- 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;

- the use in practice of skills in organizing research and design work, in team management;

- the ability to operate modern equipment and instruments;

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

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

- 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 represent 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 proposed and adopted architectural and design decisions from the standpoint of their expediency, constructive potential and artistic quality;

- mastery of the basics of world plastic culture, the ability to creatively accumulate knowledge in project activities and display project situations using artistic, 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;

- the 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 results to professional and academic communities, governing bodies, customers and the public;

- mastery of the methods of administrative, managerial and communicative work, coordination of work on design and coordination, 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;

- the ability to comprehensively analyze and critically evaluate the results of scientific research, draw up relevant reviews.

## 5 The structure of the educational program of the master's program in the scientific and pedagogical direction

№ п/п	The name of the cycles of disciplines and activities	Total labor input	
		in academic hours	in academic credits
1	2	3	4
1.	Theoretical training	1920	64
1.1	The cycle of basic disciplines (BD)	1050	35
1)	University component (UK):	600	20
	including:		
	History and philosophy of science	150	5
	Foreign language (professional)	150	5
	Higher Education Pedagogy	90	3
	Psychology of management	150	5
	Teaching practice	60	2
2)	Optional Component (OC)	450	15
2.1	Information technology in design	150	5
2.2.	Fundamentals of Urbanism and Sustainable Development	150	5
2.3	Research methodology	150	5
1.2	The cycle of core disciplines (CD)	1470	49
1)	University component (UK):	600	20
1.1	Methods of teaching professional disciplines	150	5
1.2	Modern trends in architecture and design	150	5
1.3	Professional activity of an architect and architectural designer	150	5
1.4	Art design in shaping the environment	150	5
2)	Optional Component (OC)	600	20
2.1	Environmental issues in architecture, urban planning and design	150	5

2.2	Materials science and technologies in design	150	5
2.3	Interior design	150	5
2.4	Methods of presentation of research results	150	5
3)	Research practice	270	9
2	Research work	720	24
1)	Master's research work, including internship and master's thesis	720	24
3	Additional types of training		
4	Final examination	360	12
1)	Design and defense of a master's thesis	360	12
	Total	3600	120







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

### 1. Main information on discipline:

<b>1. Main information on discipline:</b>	
Name of discipline	<b>History of philosophy and science</b>
<b>2. Ammount of credits</b>	<b>5</b>
<b>3. Prerequisites:</b>	Philosophy, Religious Studies, Sociology, Political Science
<b>4. Post requisites:</b>	Knowledge of the history and philosophy of science will contribute to the formation of graduate knowledge in the disciplines of specialization and methodology of scientific knowledge, abilities and research activities. Master's dissertation
<b>5. Competencies:</b>	<p>A. Know and understand: basic epistemological models, the nature of the transformations of the concept of rationality; forms and methods of pre-scientific, scientific and extra-scientific knowledge, modern methods of cognition.</p> <p>B. Be able to: formulate and solve problems arising in the course of research work and requiring in-depth professional knowledge; choose the necessary research methods, modify existing ones and develop new methods based on the objectives of a specific study.</p> <p>C. To have skills in the application of methodological and methodological knowledge in conducting scientific research and pedagogical work.</p> <p>D. Have the skills to conduct independent research and scientific and pedagogical activities, requiring extensive education in the appropriate direction; writing scientific abstracts, articles; speeches at scientific forums.</p> <p>E. To be able to analyze and comprehend the realities of modern theory and practice on the basis of the methodology of socio-humanitarian and natural science knowledge.</p>
<b>6. Course Author</b>	Abdina A.K. Kakimzhanova M.K.
<b>7. Main literature</b>	<p>1.История и философия науки. Под. ред. Крянева Ю.В., Моторинский Л. Е.,-М;ИНФА-М, 2011. – 416 с.</p> <p>2.Мырзалы С.К. Ғылымның тарихы мен философиясы. – Алматы: Бастау, 2014.</p> <p>3.Степин В.С. История и философия науки. –М: Академический проект, 2011. –423 с.</p> <p>4.Хасанов М. Ш., Петорова В.Ф. История и философия наук. –Алматы:Қазақ университеті, 2013,–150 с.</p>
<b>8. Discipline content:</b>	Philosophy and methodology of science as a branch of philosophical knowledge. Science in culture and civilization. The emergence of science. The main stages of

the historical dynamics of science. The structure of scientific knowledge. Scientific revolutions. Scientific rationality. Features of the modern stage of development of science. Science as a social institution. Natural sciences in the structure of modern scientific knowledge. The history of the formation of the sciences of society, culture, history and man.

<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) English for special purposes 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. 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. 2.Principles of Management, By: Mason Carpenter, Talya Bauer, Berrin Erdogan and Jeremy Short, Version: 2.0 Pub Date: March 2013 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>	
Name of discipline	<b>Higher Education Pedagogy</b>
<b>2. Amount of credits</b>	<b>5</b>
<b>3. Prerequisites:</b>	Philosophy, Psychology, History, Cultural Studies, Sociology;
<b>4. Post requisites:</b>	Pedagogical practice
<b>5. Competencies:</b>	<p>As a result of studying the discipline «Pedagogy of higher education» undergraduate</p> <ul style="list-style-type: none"> <li>- will learn: urgent problems of pedagogical science; the essence of pedagogical activity of a university teacher;</li> <li>- master the skills: the selection from the surrounding reality of pedagogical facts, phenomena, events and their description in the language of pedagogical science, based on the laws of pedagogical theories, explanations, forecasting and development; designing the educational process, based on new concepts of training and education</li> </ul> <p>He will be competent: in solving the problems of higher pedagogical education and the prospects for its further development; in the application of effective university educational technologies; solutions to relevant psychological and pedagogical problems, assessing the results achieved;</p>
<b>6. Course Author</b>	Sagalieva Z.K., Mukushev B.A., Ibraeva K.Z., Sarbasova K.A., Seilkhan G.I.
<b>7. Main literature</b>	1. Ахметова Г.К., Исаева З.А. Педагогика: Учебник для

	<p>магистратуры университетов. - Алматы: Казак университети, 2006. - 328 с.</p> <p>2.Баширова Ж.Р. Развитие университетского образования в аспекте подготовки преподавателя высшей школы. Монография. -Алматы: АТУ им.Абая, 2003. - 160 с.</p> <p>3.Мынбаева А.К. Основы педагогики высшей школы: Учебное пособие. - Алматы, 2013. - 190 с.</p> <p>4.Кредитная система обучения в вузе. - Алматы: Казак университет!, 2006. - 180с.</p> <p>5.Пионова Р. Педагогика высшей школы. - Минск: Университетское, 2002.</p> <p>6.Педагогика и психология высшей школы. - Ростов н/Д: Феникс, 2002. - 544 с.</p>
<p><b>8. Discipline content:</b> Fundamentals of pedagogy of higher education. The subject and objectives of higher education pedagogy. Methodology and methods of pedagogical research in higher education. Higher education didactics. The educational process in high school. Laws, patterns and principles of training. Methods, forms and means of education in higher education. The current state of higher education in the Republic of Kazakhstan. Professional development of a teacher of higher education. The process of education in high school. The purpose of education as a pedagogical problem. Teaching staff as a form of functioning of a holistic pedagogical process.</p>	

<p><b>4. Main information on discipline:</b></p>	
<p>Name of discipline</p>	<p><b>Psychology of management</b></p>
<p><b>2. Ammount of credits</b></p>	<p><b>5</b></p>
<p><b>3. Prerequisites:</b></p>	<p>Philosophy, Psychology, History, Cultural Studies, Sociology;</p>
<p><b>4. Post requisites:</b></p>	<p>Pedagogical practice</p>
<p><b>5. Competencies:</b></p>	<p>At the end of the course «Psychology of management» undergraduate will be able to:</p> <ul style="list-style-type: none"> <li>• understand the psychophysiological characteristics of work; basics of personality psychology;</li> <li>• know the psychological foundations of managerial activity and cognitive processes;</li> <li>• know and understand the mechanisms of human perception by man and the mechanisms of people's influence on each other, influence psychotechnologies, leadership psychology;</li> <li>• know the psychological characteristics of the formation of</li> </ul>

	<p>the labor collective and interpersonal relations in it and be able to regulate interpersonal relations in the team, including effectively resolving conflict situations;</p> <ul style="list-style-type: none"> <li>• apply the psychological laws of making managerial decisions and be able to take into account the psychological factors of managerial activity in general;</li> </ul> <p>apply psychological techniques to overcome professional stress and prevent professional burnout;</p>
<b>6. Course Author</b>	Sagalieva Z.K., Bekbaeva Z.S., Shahmetova D.S., Zhusupova A.A.
<b>7. Main literature</b>	<ol style="list-style-type: none"> <li>1. Аверченко Л.К «Психология управления» М.:1997г</li> <li>2. Урбанович А.А. «Психология управления» Минск - 2005 г.</li> <li>3.Столяренко Л.Д. «Психология управления» Ростов-на-Дону 2005 г</li> <li>4.Райзберг Б.А. «Психологические основы управления» М.: 2003 г.</li> <li>5.Шейнов В.П. «Психология и этика делового контакта» Минск 1997</li> <li>6. Вересов Н.Н. «Психология управления» М.: 2001 г.</li> <li>7.Венедиктова В.И. «Деловая репутация» М. 1996 г.</li> <li>8.Леонова А.Б.«Психопрофилактика стрессов» М.: 1993 г.</li> </ol>
<b>8. Discipline content:</b>	Introduction to psychology of management. 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 the 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. Staff rotation. Certification and staff turnover.

<b>5. Main information on discipline:</b>	
Name of discipline	<b>Methods of teaching professional disciplines</b>
<b>2. Ammount of credits</b>	<b>5</b>
<b>3. Prerequisites:</b>	«Philosophy»
<b>4. Post requisites:</b>	«Professional activity of the architect and designer of the architectural environment», «Pedagogical practice»
<b>5. Competencies:</b>	the ability to transfer architectural and design experience

	and the implementation of pedagogical activities at various stages of preparation and stages of professional retraining; the ability to research and develop innovative methods and copyright courses in the field of architectural and design pedagogy, to analytical research and implementation of teaching methods of leading domestic and foreign architectural and design schools; readiness to use in pedagogical activities the laws of the aesthetic organization of objects and phenomena of the architectural and design environment: the principles of composition and harmonization of architectural and design decisions, the laws of the color organization of the environment.
<b>6. Course Author</b>	Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.
<b>7. Main literature</b>	Глазычев, В. Дизайн как он есть [Электронный ресурс]: монография/ Глазычев В. - Электрон. текстовые данные. - М.: Европа, 2013.- 320 с.//IPR books. Эрганова Н.Е. Методика профессионального обучения. - М.: Академия, 2007.
<b>8. Discipline content:</b>	1. A systematic approach to teaching and its implementation in the analysis of pedagogical activity. 2. Didactic principles of teaching special disciplines and their features. 3. Methods and teaching techniques. 4. Methodology for the formation of the content of professional (special) training. 5-6. Methods of analysis and forecasting of learning objectives. 7-8. Methods of analysis and diagnosis of the learning process. 9-10. Methodology for the design of educational materials. 11-12. Methodology for the selection of training technologies. 13. Motivation for learning activities. 14. Technology for the formation of new knowledge. 15. Technology for the formation of professional actions.

<b>6. Main information on discipline:</b>	
Name of discipline	<b>Modern trends in the development of architecture and design</b>
<b>2. Amount 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>	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;
<b>6. Course Author</b>	Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.
<b>7. Main literature</b>	Агранович-Пономарева Е.С. Справочное издание «Архитектурный дизайн»-Ростов н/Д: Феникс,2009. 342с. Иодо И.А. Градостроительство и территориальная планировка»: учебн. пос. для вузов -Ростов н/Д: Феникс,2008. 285с.

**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.

<b>7. 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; be able to - to express, describe and evaluate the advantages and disadvantages of design architectural and design works and find ways to improve them; to possess the skills of critical analysis of architectural design work and the skills of finding ways to improve them
<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.

<b>8. Main information on discipline:</b>	
Name of discipline	<b>Art design in shaping the environment</b>



<b>2. Ammount of credits</b>	<b>5</b>
<b>3. Prerequisites:</b>	Modern design; Predesign analysis
<b>4. Post requisites:</b>	Master's dissertation
<b>5. Competencies:</b>	should have: the ability to integrate architectural and design components into the formation of a spatial environment, to creatively perceive the utilitarian and practical requirements of a person and society when forming objects of an architectural environment and to convert these requirements into promising models for organizing a modern lifestyle, to an adequate and expressive reflection in design materials of practical, practical, artistic characteristics and parameters of the designed environment; ability to possess high motivation for architectural and design activities, professional responsibility and understand the role of architect-designer in the development of society, culture, science.
<b>6. Course Author</b>	Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.
<b>7. Main literature</b>	Уткин М. Ф. и др. Архитектурно-дизайнерское проектирование жилой среды (городская застройка): учеб. пособие для обучения студентов спец. «Дизайн архитектур. среды» направления «Архитектура» и специализации «Дизайн среды» спец. «Дизайн» направления «Дизайн и техн. Эстетика» М.: Архитектура - С, 2010
<b>8. Discipline content:</b> Artistic approach to the formation of the environment. Art design and its directions. Art object. Land art as the implementation of modern aesthetic concepts of postmodernism. Landscaping and its directions. Transformation of the environment of post-industrial objects by means of art design. Creative City Strategies. Urban environment as a process. Current trends in the creation of art objects.	

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

<b>9. 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>	must possess: 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.
<b>6. Course Author</b>	Candidate of Technical Sciences, Associate Professor 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.	

<b>10. 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.; 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".	

<b>11. 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
<b>5. Competencies:</b>	Know: the theoretical foundations of the methodology of scientific research in the professional field; modern methods and techniques of researching professional activities; Be able to: use the knowledge about research in order to develop their intellectual and cultural level; Own: modern technical means modern techniques and research methods in the field of design of the architectural environment
<b>6. Course Author</b>	Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.
<b>7. Main literature</b>	Дмитриев М. Н. Методология и методы исследований в экономике: учеб. пособие Н. Новгород: ННГАСУ, 2014 Кузнецов И.Н. Научное исследование: методика

	проведения и оформ. М. : Изд.-торговая корпорация «Дашков и К», 2007
<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.	

<b>12. Basic information about the discipline:</b>	
Name of the discipline	<b>Environmental issues in architecture, urban planning and design</b>
<b>2. Amount of credits</b>	<b>5</b>
<b>3. Prerequisites:</b>	Ecology and the basics of life safety
<b>4. Post requisites:</b>	Art design in shaping the environment; Master's dissertation
<b>5. Competencies:</b>	<p>Master degree student must master the methods:</p> <ul style="list-style-type: none"> <li>-design of architectural objects taking into account environmental requirements;</li> <li>-ecological optimization of the spatial structure of architectural objects;</li> <li>-ecological optimization of architecture objects by means of landscape architecture.</li> </ul> <p>Identify environmental problems based on available analytical information. Give an objective assessment of the environmental condition of the construction site. Identify possible ways to optimize the environmental status of the designed facility. Predict the environmental consequences of architectural and construction activities.</p>
<b>6. Course Author</b>	Zhanabergenov A.O.
<b>7. Main literature</b>	<ol style="list-style-type: none"> <li>1. Тетиор А.Н. Архитектурно-строительная экология: учеб.пособие для студ. высш. учеб. заведений / А.Н. Тетиор. - М.: Издательский центр «Академия», 2012. - 368 с.</li> <li>2. Иодо И.А., Потаев Г.А. Градостроительство и территориальная планировка. - Ростов н/ Д., Феникс, 2008. – 285 с.</li> <li>3. Урбанистика и архитектура городской среды: учебник: рекомендовано УМО. - Москва: Академия, 2014. - 268 с.</li> <li>4. СНиП 23-01-99 Строительная климатология. - Введ. 2000-01-01.-М.: Госстрой России, ГУП ЦПП,</li> </ol>

2000. - 58 с.

5. Сазонов Э.В. Экология городской среды: учеб. пособие. - СПб.: ГИ-ОРД, 2010. - 312 с.

**8. The content of the discipline:** «Environmental problems in architecture, urban planning and design» is the assimilation of knowledge about environmental problems the basics of architecture and design, the development of methods of environmentally oriented design of architectural objects. Discipline is significant for the development of research, expert, organizational and managerial competencies of a graduate - master. Discipline provides increased training in the theory and practice of architectural activity. The study of discipline is based on the development of architectural design.

### **13. Basic information about the discipline:**

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 of building materials and products;</li><li>2. To establish requirements for the material according</li></ol>

	<p>to the nomenclature of quality indicators:  purpose, manufacturability, operational properties, environmental friendliness;</p> <p>3. Select the optimal material for the given thermophysical and mechanical properties;</p> <p>Own:</p> <p>1. Methods for assessing the quality of building materials and the choice of technology;</p> <p>2. Research methods for the properties of building materials.</p>
<b>6. Course Author</b>	
<b>7. Main literature</b>	<p>1. Байер В.Е. Материаловедение для архитекторов, реставраторов, дизайнеров: Учебное пособие М.: Архитектура - С 2012. - 264 с.</p> <p>2. Строительное материаловедение: учебное пособие /Под общей редакцией В.А. Невского. – Ростов н/Д.: Феникс, 2007. – 571 с.</p> <p>3. Строительное материаловедение: учебное пособие /Под общей редакцией В.А. Невского. – Ростов н/Д.: Феникс, 2010. – 588 с.</p> <p>4. Уолтон С. 1000 идей по оформлению интерьера: Как сделать ваш дом красивым / С. Уолтон. – М.: РАДУГА, 1997. – 256 с.</p>
<p><b>8. The content of the discipline:</b> 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.</p>	

<b>14. Basic information about the discipline:</b>	
Name of the discipline	<b>Interior design</b>
<b>2. Amount of credits</b>	<b>5</b>
<b>3. Prerequisites:</b>	Elements and processes of profile design
<b>4. Post requisites:</b>	Master's dissertation
<b>5. Competencies:</b>	<p>Know:</p> <ul style="list-style-type: none"> <li>- The fundamentals of the theory and methods of architectural design design; content and sources of pre-project information, methods for its collection and analysis;</li> </ul>

	<p>- the composition and technique of design assignments; a system of design and working documentation for construction, its composition, basic requirements for it; principles of harmonization (correction) of the environmental situation; the basics of verbal, graphic, computer representation of architectural design; basics of analysis and assessment of the state of a particular environment, building or fragments thereof composition of social, consumer and legal requirements;</p> <p>be able to: collect and analyze source information and develop tasks for the design of environmental objects; carry out pre-project analysis and develop design concepts; provide professional services in various organizational forms; transmit accumulated knowledge and skills during defenses, discussions, classes; competently represent the architectural design concept by means of prototyping, manual and computer graphics;</p> <p>own: methodology of architectural and design design; methods of creating and promoting the author's design and art concept, stimulating design innovations; the methodology of pre-project analysis of a specific environment, building, complex of buildings or their fragments; methods of generalization, analysis and critical assessment of architectural and design decisions.</p>
<p><b>6. Course Author</b></p>	<p>Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.</p>
<p><b>7. Main literature</b></p>	<p>1.Ефимов А.В. и др. Архитектурно-дизайнерское проектирование. Специальное оборудование интерьера: учеб. пособие для студ., обуч. по напр. «Архитектура», спец. «Дизайн арх. среды» - М.: Архитектура - С, 2008. - 136 с.</p> <p>2.Устин В.Б. Художественное проектирование интерьеров: учеб. пособие для студ. вузов / В. Б. Устин. - М.: АСТ-Астрель, 2010.- 288 с.</p>
<p><b>8. The content of the discipline:</b> A business component in interior design. Design documentation. Types of interiors and their types. Design elements in the interior. Decorative materials, furniture and equipment.</p>	

<p><b>15. Basic information about the discipline:</b></p>	
<p>Name of the discipline</p>	<p><b>Results Design methods of research</b></p>

<b>2. Amount of credits</b>	<b>5</b>
<b>3. Prerequisites:</b>	Research Methodology
<b>4. Post requisites:</b>	Master's dissertation
<b>5. Competencies:</b>	<p>Know: design methods and types of presentation of the research results;</p> <p>be able to: present the results of the work performed;</p> <p>own: the ability to present the results of design work and research at a modern level with the preparation of presentations, demonstrations, reports, conclusions, abstract reviews, publications and the presentation of results to professional and academic communities, governing bodies, customers and the public</p>
<b>6. Course Author</b>	Candidate of Technical Sciences, Associate Professor Dzhanakhmetov U.K.
<b>7. Main literature</b>	<p>Мокий М. С.и др. Методология научных исследований: учеб. для магистров : учеб. для студентов вузов М.: Юрайт, 2015</p> <p>Жилина Н.Д. Требования к содержанию, объему и структуре выпускной квалификационной работы магистра: для всех направлений и профил. направленностей (программ) ННГАСУ, 2014</p>
<b>8. The content of the discipline:</b> Goals and objectives of the discipline. Scientific research as a social institution. Signs of scientific research. Classification of branches of science. The components of scientific research. Guidelines for the development of research components. Forms for the presentation of research results. Scientific research and its methodology.	

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Soltan G.Z.

Dean of the Faculty of Land resources Management  
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