

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**

**O. M. Beketov National University of Urban Economy in Kharkiv  
(O.M. Beketov NUUEKh)**

**ADDITION**

**to the educational and professional program**

**"ARCHITECTURE AND URBAN PLANNING"**

**The level of higher education is the first (bachelor's) level**

**Branch of knowledge 19 Architecture and construction**

**Specialty 191 Architecture and urban planning**

**APPROVED BY THE SCIENTIFIC AND METHODOLOGICAL COUNCIL**

**Head of the scientific and methodical council**

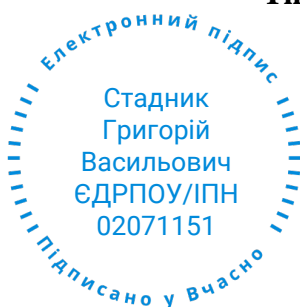
**Hryhoriy STADNYK**

**(protocol No. 1 from "29" August \_ 2023)**

**The appendix to the educational program enters into force  
for the period of validity of the relevant educational program and  
is an integral part of the educational program.**

**The educational program has been implemented since «1» September 2023.**

**(order No. 241-01 of " 31" August 2023\_)**



**Kharkiv - 2023.**

**Погоджено:**

✓ Tetyana.Rischenko@kname.edu.ua

**LETTER OF AGREEMENT**  
**supplement to the educational-professional/scientific program**

Department of Architecture of Buildings and Structures  
Protocol No. 1 from "28" August 2023




Department of Innovative Technologies in the Design of Architectural Environment  
Protocol No. 1 from "27" August 2023

Department of Urbanism and city planning  
Protocol No. 1 from "28" August 2023

Department of the basics of architectural design  
Protocol No. 1 from "27" August 2023

Department of reconstruction, restoration of architectural objects  
Protocol No. 1 from "28" August 2023

Academic Council of the National Institute of Architecture, Design and Fine Arts  
Protocol No. 1 from "28" August 2023

Name, surname of the guarantor of the educational program and other developers	Degree, academic title, position	Signature
Olga VYGDOROVYCH guarantor of the educational program	candidate of architecture, associate professor, associate professor of the Department of Urbanism and city planning	
Olena HELLA	candidate of architecture, associate professor, associate professor of the Department of the basics of architectural design	
Olga SMIRNOVA	candidate of architecture, associate professor, associate professor of the Department of the basics of architectural design	

## **Competencies and learning outcomes provided by optional educational components**

<b>General competences (SGC)</b>
<p>SGC 1. Ability to communicate in a foreign language in a business environment.</p> <p>SGC 2. The ability to analyze the main stages and regularities of the social-historical, cultural-artistic, ethno-national, educational development of the Slobid region for the formation of a civic position</p> <p>SGC 3. The ability to analyze the main regularities of the functioning of culture in Ukrainian society, its connection with other components of the social life of the Ukrainian people, for the formation of the civic position of modern Ukrainian youth</p> <p>SGC 4. Independently determine the selection of the necessary lexical and grammatical structure in accordance with the conditions of scientific and professional communication</p> <p>SGC 5. The ability to realize one's rights and responsibilities as a member of society, to be aware of the values of civil society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen; the ability to work in an international context.</p> <p>SGC 6. The ability to analyze the main regularities of the functioning of culture in society, its connection with other components of social life, for the formation of a modern multicultural worldview</p> <p>SGC 7. Ability to act on the basis of ethical considerations; respect for diversity and multiculturalism.</p> <p>SGC 8. Communicative (fluency in the Ukrainian language in a professional direction), namely: practical mastery of effective rhetorical techniques, the art of argumentation and eloquence, the ability to communicate in various genres of oratory for successful future professional activity.</p>
<b>Professional competences (SPC)</b>
<p>SPC 1. The ability to apply language, speech, linguistic, sociocultural and communicative skills for effective communication in a foreign language.</p> <p>SPC 2. Knowledge of modern architectural styles and trends in architecture, the ability to theoretically understand the prerequisites, methods, results of designing buildings and structures, understand the basics of barrier-free architecture, the ability to design a barrier-free environment for buildings and structures.</p> <p>SPC 3. Knowledge of the history of design and the factors of the formation of the design of the architectural environment, the ability to theoretically understand the prerequisites, methods, results and consequences of the formation of the architectural environment as a field of design activity, to know the basics of the formation of an inclusive environment of interior and exterior spaces.</p> <p>SPC 4. The ability to possess the skills of analyzing natural conditions, functional-planning, compositional and historical-architectural analysis of the projected site, to know the peculiarities of building a typology of urban planning objects according to the hierarchical principle, to have knowledge of modern trends in the formation of a barrier-free architectural and urban planning environment.</p> <p>SPC 5. The ability to master the methods of researching architectural monuments.</p> <p>SPC 6. The ability to apply compositional thinking, to understand modern concepts of architectural design and form-building.</p> <p>SPC 7. The ability to fluently master the linguistic means used in texts of scientific and professional content</p> <p>SPC 8. The ability to use computer programs, designing various types of architectural objects for the purpose of sketching, performing calculations, variable composite modeling, performing working drawings and presenting the project to the customer.</p> <p>SPC 9. The ability to master the methodology of architectural design of buildings and three-dimensional structures, creative methods of broadcasting the author's architectural and artistic idea, stimulation of innovations, methods and means of compositional modeling, methods and</p>

technologies of energy- and resource-saving architectural design, methods and technologies of computer and mock-up design.

SPC 10. Have the knowledge and skills of pre-project analysis of the planned site.

SPC 11. The ability to use techniques of style creation, means of composition in design projects with the aim of harmonizing the image of buildings.

SPC 12. The ability to use architectural and design methods, tools and design methods in accordance with a certain type of environment.

SPC 13. The ability to organize architectural environment design activities, develop a design concept and execute a design project.

SPC 14. The ability to possess graphic types of professional image, revealing the figurative, large-scale and spatial properties of an architectural object.

SPC 15. Possess the knowledge and skills of developing a functional and planning, compositional solution of the designed object.

SPC 16. Possess the knowledge and skills of developing a landscape solution for the designed object.

SPC 17. The ability to master the methods of designing the restoration and rehabilitation of architectural monuments.

SPC 18. The ability to determine and analyze the conditions of the historical architectural environment.

SPC 19. The ability to use architectural and project techniques for the rehabilitation of historical objects of architecture and urban planning.

SPC 20. The ability to create a volumetric and compositional solution of the design object, graphic and three-dimensional design of the project solution

SPC 21. The ability to apply modern architectural and design techniques for the construction of the interior space of architectural objects.

SPC 22. Awareness of the peculiarities of the modern idea of architectural compositional thinking and the stages of its evolution, knowledge of the latest trends in architectural form-making

### **Learning outcomes (SLO)**

SLO 1. To carry out effective written communication in a foreign language in a business environment.

SLO 2. To determine the historical and ethnographic features of the region, the cause-and-effect relationships of the main events in the history of Slobozhanshchyna

SLO 3. To analyze cultural processes in modern Ukrainian society, to understand the influence of all factors of social life (political, economic, others) on the culture and spirituality of modern Ukrainians.

SLO 4. Know the main lexical and grammatical constructions that are used in a scientific text by specialization to reproduce the relevant topic

SLO 5. Use normative and legal acts regulating professional activity. Make informed decisions and bear responsibility for the results of your professional activity.

SLO 6. To carry out effective oral communication in a foreign language in a business environment.

SLO 7. Analyze the peculiarities of cultural processes in the modern world; to make a comparative description of the main cultural centers of the modern world.

SLO 8. To navigate in the socio-cultural space of ethical and aesthetic values.

SLO 9. Carry out professional communication: create communicative products, analyze communicative activity; respond adequately to criticism, generate and argue for new ideas; exert a communicative influence on people, encouraging them to act; to prove one's own opinions; identify and apply information and communication technologies; to develop skills of interpersonal interaction in a team.

SLO 10. Apply language, speech, linguistic, sociocultural and communicative skills for effective communication in a foreign language.

SLO 11. Know the modern concepts of architectural design, the course of evolutionary compositional thinking in architecture and the latest forms of architectural design
SLO 12. Apply a variety of innovative means of architectural visualization, the latest methods of creating an inclusive architectural environment and a visual and informational environment of a modern city
SLO 13. Apply various concepts of urban planning analysis of territories, apply modern typology of urban planning objects and be able to create a barrier-free architectural and urban planning environment
SLO 14. To have modern methods of researching architectural monuments, to know the basics of historical monuments and chemical means of preservation of architectural objects
SLO 15. To know modern concepts of architectural design, to be aware of the evolutionary movement of compositional thinking in architecture and to master parametric architectural design
SLO 16. Know the main lexical and grammatical constructions that are used in scientific text by specialization to reproduce the corresponding topic
SLO 17. Know modern software tools for designing architectural objects
SLO 18. Apply the acquired knowledge regarding the design of residential and public buildings and structures of various purposes
SLO 19. Design complex multifunctional buildings at a modern level, taking into account the principles of barrier-free architecture, energy-efficient and other modern technologies (development of sketch proposals and participation in the development of project documentation)
SLO 20. Use the latest software tools of architectural and design planning
SLO 21. To know the basics and methods of architectural design of architectural objects
SLO 22. Apply the acquired knowledge to the complex design of an aesthetically expressive, harmonious, comfortable, inclusive and safe architectural environment, subject-spatial environmental situations, systems and objects (development of design concepts and participation in the development of project documentation)
SLO 23. Know the basics of information modeling of objects in the urban environment and software tools in urban planning
SLO 24. Be able to perform design works of various objects in the urban and natural landscape according to their functional purpose
SLO 25. Develop project and urban planning documentation, applying knowledge about the general urban development of territories
SLO 26. Apply modern software tools for designing and reconstructing architectural objects
SLO 27. Apply modern techniques of architectural and urban planning in the conditions of the historical environment
SLO 28. Apply modern knowledge to design the rehabilitation of historical architectural objects
SLO 29. Apply modern means and methods of engineering, artistic and computer graphics in the process of designing multifunctional housing. Implement IT technologies, innovative 3D modeling tools.
SLO 30. Use modern methods of information search and systematization in the design and layout of general education and specialized educational institutions, using software tools of architectural design.
SLO 31. Apply knowledge and use the results of creative communication in complex architectural and urban planning projects; act innovatively and technically competently

## 2. List of optional educational components and their logical sequence

### 2.1. List of optional educational components (OEC)

Code s/d	Components of the educational program (educational subjects, course projects (works), practices, qualification work)	Number of credits	Final control form	Content modules
1	2	3	4	5
<b>Block B</b> <i>(disciplines that provide the socio-humanitarian component of training and general competences; the applicant chooses two disciplines from the block)</i>				
<b>Block B1</b>				
OEC 1.	Business foreign language: written communication (Ukrainian language / English language)	4	differential credit	CM 1. Types of business written communication. CM 2. Grammatical and lexical features of business written communication. CM 3. Peculiarities of intercultural business written communication and business etiquette.
OEC 2.	Local history (Ukrainian language / English language)	4	differential credit	1. Historical and geographical features of the Slobid region 2. Spiritual wealth of the Slobid region in historical retrospect 3. Material monuments of the cultural and historical heritage of the region
OEC 3.	History of Ukrainian Culture (Ukrainian language / English language)	4	differential credit	1. Culture of ancient and medieval Ukraine 2. Culture of modern Ukraine 3. The culture of Ukraine of the latest era and modernity.
OEC 4.	Language training (for foreign citizens) (Ukrainian language)	4	differential credit	1. Characteristics and conditions of the process 2. Identification and change of properties 3. Description of human activity
OEC 5.	Legal principles of personal data protection and cyber security	4	differential credit	1. Legal regulation of relations in the field of cyber security and handling of personal data. 2. Peculiarities of personal data collection and processing. 3. Legal regulation of handling of personal data with the participation of artificial intelligence
OEC 6	Business foreign language: oral communication (English language)	4	differential credit	CM 1. Types of business oral communication.

				CM 2. Grammatical and lexical features of business oral communication. CM 3. Peculiarities of intercultural business oral communication and business etiquette.
OEC 7	Culturology (Ukrainian language / English language)	4	differential credit	CM 1. Culture as a social phenomenon. CM 2. Comparative analysis of cultures. CM 3. Cultural dynamics and evolution.
OEC 8.	Ethics and aesthetics (Ukrainian language / English language)	4	differential credit	CM 1 Ethics. CM 2 Aesthetics. CM 3 Ethical and aesthetic in professional activity.
OEC 9	Language training (for foreign citizens) (Ukrainian language)	4	differential credit	1. Problems of modern science 2. Annotating texts of a general scientific nature 3. Referencing texts of a general scientific nature
OEC 10	Professional rhetoric	4	differential credit	1. Rhetoric in professional communication. 2. Scientific rhetoric. 3. The art of effective professional communication.
<b>1th Block CP</b>				
<i>(certificate programs in three disciplines that provide general and professional competences; the applicant chooses one certificate program from the block)</i>				
<b>CP1 Foreign language (special course)</b>				
OEC C1.1	Foreign language (special course)	4	differential credit	1. Man and society 2. Student life 3. Leisure and travel
OEC C1.2	Foreign language (special course)	4	differential credit	1. The modern world of fashion, leisure and television 2. Climate and weather conditions 3. Man and success
OEC C1.3	Foreign language (special course)	4	differential credit	1. Health and sports 2. Restaurants and national cuisines 3. Man and nature. Environmental Protection
<b>CP 2. Modern trends in architecture</b>				

OEC C2.1.	Architecture of the latest era (Ukrainian language / English language)	4	differential credit	1. Sources and directions of modern architecture (modernism) of the early 20th century. 2. Architectural styles of the post-war era (50s - 70s of the 20th century) 3. Variety of architectural styles and trends of the late 20th - early 21st centuries.
OEC C2.2.	Basics of interior design (Ukrainian language / English language)	4	differential credit	1. The main functions of a modern interior. 2. Features of interior design of residential premises. 3. Features of interior design of public premises
OEC C2.3.	Barrier-free architecture (Ukrainian language / English language)	4	differential credit	1. Basics of barrier-free architecture 2. Modern trends in the design of objects of a barrier-free environment 3. Universal design
<b>CP 3. Innovative technologies in architecture</b>				
OEC C3.1.	Inclusive architectural environment (Ukrainian language / English language)	4	differential credit	1. Basics of inclusive architecture design 2. Design features of inclusive residential buildings 3. Features and requirements of designing inclusive public buildings
OEC C3.2.	Visual and informational environment of the modern city	4	differential credit	1. Visual communications in an architectural environment. 2. Problems of coexistence of advertising and architecture. 3. Visual brand of the city.
OEC C3.3.	Light and color in architecture and design	4	differential credit	1. Lighting design of public buildings and advertising 2. Light-colored organization of the urban environment 3. Lighting in the interior (light design in the interior)
<b>CP4. Development of urban areas</b>				
OEC C4.1.	Urban planning analysis of territories (Ukrainian language / English language)	4	differential credit	1. Multifactor urban planning analysis 2. Urban planning analysis in the territorial planning system 3. SWOT analysis as a tool for strategic planning of territories
OEC C4.2.	Typology of urban planning objects (Ukrainian language / English language)	4	differential credit	1. Hierarchical typology of urban planning objects 2. Typological features of the building elements of the city 3. Typological features of the elements of the city's open spaces



OEC C4.3.	Barrier-free architectural and urban planning environment (Ukrainian language / English language)	4	differential credit	<ol style="list-style-type: none"> <li>1. Modern trends in creating a barrier-free urban environment.</li> <li>2. Urban planning elements of the formation of a barrier-free environment in cities.</li> <li>3. Methods of urban development of a barrier-free environment in cities.</li> </ol>
<b>CP 5. Architectural monuments and their restoration</b>				
OEC C5.1	Chemistry in restoration	4	differential credit	<ol style="list-style-type: none"> <li>1. General chemistry.</li> <li>2. Chemical technologies of traditional building materials.</li> <li>3. Polymers in restoration</li> </ol>
OEC C5.2	The basics of monument studies	4	differential credit	<ol style="list-style-type: none"> <li>1. Historical theories of restoration of architectural monuments</li> <li>2. Architectural culture of the region.</li> <li>3. Source studies and archival work.</li> </ol>
OEC C5.3	Methods of researching architectural monuments	4	differential credit	<ol style="list-style-type: none"> <li>1. Architectural archaeology</li> <li>2. Architectural photogrammetry</li> <li>3. Theoretical and methodological foundations of architectural and restoration design</li> </ol>
<b>CP 6. Formation of modern architectural objects</b>				
OEC C6.1	Modern concepts of architectural design	4	differential credit	<ol style="list-style-type: none"> <li>1. The main features of the modern architectural process.</li> <li>2. Main concepts of modern architecture.</li> <li>3. Modern architecture as a regional cultural project</li> </ol>
OEC C6.2	Evolution of compositional thinking in architecture	4	differential credit	<ol style="list-style-type: none"> <li>1. The modern idea of architectural compositional thinking and the stages of its evolution.</li> <li>2. Change in types of compositional thinking from antiquity to the end of the 19th century.</li> <li>3. Varieties of modern techniques and methods of compositional thinking in the 20 – 21st centuries</li> </ol>
OEC C6.3	Biomorphic and parametric architectural formation	4	differential credit	<ol style="list-style-type: none"> <li>1. The use of bionics in shaping the architectural environment.</li> <li>2. Parametricism as a component of the latest paradigm of architectural design.</li> <li>3. Virtual reality of architecture. The latest trends in architectural design</li> </ol>
<b>CP 7. Language training</b>				
OEC C7.1	Language training (for foreign citizens) (Ukrainian language / English language)	4	differential credit	<ol style="list-style-type: none"> <li>1. Annotation of socio-political texts</li> <li>2. Referencing texts of a socio-political nature</li> <li>3. Science and society</li> </ol>

OEC C7.2	Language training (for foreign citizens) (Ukrainian language / English language)	4	differential credit	1. Annotating sociocultural texts 2. Referencing texts of a socio-cultural nature 3. Scientific and technical process and future specialty
OEC C7.3	Language training (for foreign citizens) (Ukrainian language / English language)	4	differential credit	1. Scientific and professional branch of communication 2. Annotating texts by specialty 3. Referencing texts by specialty
<b>2nd Block</b>				
(disciplines that provide professional competences; the applicant chooses one block or a certain number of disciplines from the list)				
<b>P1 Block. Architecture of buildings and structures</b>				
OEC P1.1.	Software tools for designing architectural objects (Ukrainian language / English language)	4	differential credit	1. Work with digital images and vector graphics. 2. Two-dimensional modeling 2D 3. 3D modeling. 2D drawing of floor plans, sections and dimensioning
OEC P1.2.	Architectural design of buildings and structures: Residential settlement for 6-8 thousand inhabitants (Ukrainian language / English language)	6	differential credit	1. Pre-project analysis and concept of a residential settlement. 2. Development of a general plan for a residential settlement 3. Architectural and planning decision of the public residential center settlement.
OEC P1.3.	Architectural design of buildings and structures: Residential group of medium storey (Ukrainian language / English language)	5	differential credit	1. Pre-project analysis of the territory for design 2. Development of the general plan of the residential group. 3. Spatial and planning solution of a residential group with medium-storey buildings.
OEC P1.4.	Architectural design of buildings and structures: A cultural and entertainment building with a 300-seat auditorium (Ukrainian language / English language)	5	differential credit	1. Modern design trends and the concept of cultural and entertainment facilities. 2. Development of the general plan of the cultural and entertainment facility. 3. Architectural and planning solution of a cultural and entertainment building with an auditorium.
OEC P1.5.	Architectural design of buildings and structures: Multifunctional park of regional significance (Ukrainian language / English language)	4	differential credit	1. Pre-project analysis and options for the functional planning solution of the park territory. 2. Composite solution and development of the general plan of the multifunctional park 3. Detailing of the center of the park with the development of a monofunctional building
OEC P1.6.	Architectural design of buildings and structures:	5	differential credit	1. Pre-project analysis of the design area and options for the hotel's volumetric and spatial solution

	**** category hotel for 200-400 places (Ukrainian language / English language)			2. Development of the volumetric planning solution of the hotel and facades 3. Resolution of the planning and spatial organization of the adjacent territory and implementation of the project layout
OEC P1.7.	Architectural design of buildings and structures: Public purpose interior (Ukrainian language / English language)	5	differential credit	1. Modern trends in hotel interior design 2. Sketching of the interiors of the public premises of the hotel 3. Execution of sweeps, ceiling and floor plans, walls and room perspectives
OEC P1.8.	Architectural design of buildings and structures (Ukrainian language / English language)	6	differential credit	1. Pre-project analysis of the territory and variant solution of the volumetric planning solution of the object 2. Development of a volume-planning solution and solution of the composition of the object 3. Resolution of the master plan of the territory and implementation of the full layout of the project
	<b>Together with block 1</b>	<b>40,0</b>		
<b>Block P2. Architectural environment design</b>				
OEC P2.1.	Architectural design software (Ukrainian/English)	4	differential credit	1. Construction of the architectural volume by means of modeling (primitives, basic modifiers, types of mesh and poly objects, their main properties and deformations, etc.) 2. Construction of subject-spatial filling of the interior - design elements (with the help of extended and complex objects - loft, boulin, transformations, modifiers, etc.) 3. Visualization: basic preparation - materials, light, settings, cameras
OEC P2.2	Architectural and design planning - "Townhouse" (Ukrainian language / English language)	6	differential credit	1. 3D diagram of the combination of internal living and external spaces. Blocking options and working layout development 2. Functional-compositional and architectural-planning solution of the spatial composition of the townhouse 3. System layout: residential cell - residential section - residential group
OEC P2.3	Architectural and design planning: Design of a multifunctional cultural	5	differential credit	1. Pre-project analysis of the landscape territory of the park and

	object (Ukrainian language / English language)			<p>the concept program of the functional zoning of the art space</p> <p>2. Architectural-aesthetic and planning organization of the art space environment</p> <p>3. Landscape organization of the site and architectural and design solution of the object in combination with the environment</p>
OEC P2.4	Architectural design: Design holiday event (Ukrainian language / English language)	5	differential credit	<p>1. Pre-project urban planning analysis, mastering the geometry of a large and two-dimensional urban space, presentation of the theme of the holiday</p> <p>2. Volumetric-spatial and compositional solution of the forms of organization of a festive event by making a working layout</p> <p>3. Design of a festive event with the development of a holiday poster</p>
OEC P2.5.	Architectural and design planning: Design of a local private environment (Ukrainian language / English language)	4	differential credit	<p>1. Analysis of prototypes, selection of the stylistic direction of the apartment design and selection of materials: development of "Letter-decor"</p> <p>2. Functional analysis of the living space, re-planning of the apartment and execution of the exercise: "Kitchen equipment arrangement"</p> <p>3. Interior design and placement of furniture in the apartment</p>
OEC P2.6	Architectural design: Design of a public facility (Ukrainian language / English language)	5	differential credit	<p>1. Pre-project analysis of the local space of the dense perimeter building of the quarter and justification of the choice of the theme of the house-insert</p> <p>2. Volumetric-spatial composition and organization of internal space in conditions of dominance of vertical communication</p> <p>3. Architectural and design solution: plans, sweeps, axonometric section and perspective views. Determination of the reception of graphic design</p>
OEC P2.7.	Architectural design: Office building design (Ukrainian language / English language)	5	differential credit	<p>1. Modern trends in the design of office buildings, choosing the theme of the representation and working with the corporate style of the company.</p> <p>2. Artistic and functional solution of the object. Basic</p>

				functional and compositional positions. 3. Design of the public spaces of the object, solution of the general plan of the territory and implementation of the complete layout of the project.
OEC P2.8.	Architectural design using innovative technologies (Ukrainian language / English language)	6	differential credit	1. Analysis of the urban planning situation of the design, initial data, field survey, familiarization and description of the design situation. Basic functional and compositional design positions 2. Analysis of the regulatory framework, evaluation of project proposal options, detailing of the spatial planning solution of the object 3. Development of graphic and exposition presentation of the project
<b>Together for block 2</b>		<b>40,0</b>		
<b>Block P3. Urbanism and City Planning</b>				
OEC P3.1	Software tools in urban planning (Ukrainian language / English language)	4	differential credit	1. Planar composition. Work with digital images, vector graphics in the program. 2. Two-dimensional 2D modeling and the basics of 3D modeling of urban objects 3. Two-dimensional modeling of master plans and 3D design of landscape objects.
OEC P3.2	Architectural design: Cottage village for 6,000 residents in a suburban area (Ukrainian language / English language)	6	differential credit	1. Pre-project analysis and concept of town planning organization of the village. 2. Development of the village master plan. 3. Volumetric and spatial resolution of the community center of the village.
OEC P3.3	Architectural design: Building with a sports and recreation function (Ukrainian language / English language)	5	differential credit	1. Pre-project analysis and concept of the object's architectural solution. 2. Functional planning, constructive and compositional solution of the object 3. Development of a volumetric planning solution for a building with a sports and recreation function
OEC P3.4.	Architectural design: School for 500-700 students (Ukrainian language / English language)	5	differential credit	1. Pre-project analysis and concept of the object's architectural solution. 2. Functional planning, constructive and compositional solution of the object. 3. Development of a volume-planning solution for a school building for 500-700 students

OEC P3.5.	Architectural design: City Garden (Ukrainian language / English language)	4	differential credit	1. Pre-design analysis of the functional planning solution of the city garden. 2. Composite solution and development of the general plan garden 3. Detailing of the central city garden
OEC P3.6.	Architectural design: Open sports complex (cultural and entertainment) (Ukrainian language / English language)	5	differential credit	1. Pre-project analysis and concept of the urban planning solution of the object. 2. Functional planning and compositional solution of the object 3. Landscape organization of the object territory
OEC P3.7	Architectural design: Residential group with medium-storey buildings (Ukrainian language / English language)	5	differential credit	1. Pre-project analysis and concept of the architectural and urban planning solution of the object. 2. Functional planning and compositional solution of the object 3. Landscape organization of the object territory
OEC P3.8.	Architectural design of residential and public buildings in the urban and natural landscape (Ukrainian language / English language)	6	differential credit	1. The pre-project stage of designing in the urban and natural landscape, development of the concept of the project solution 2. Functional and planning solution of the projected object and compositional solution of the projected object 3. Landscape solution of the projected object, graphic and text design of the project solution
<b>Together for block 3</b>		<b>40,0</b>		
<b>Block P4. Reconstruction, restoration of architectural objects</b>				
OEC P4.1	Software tools for designing and reconstructing architectural objects. (Ukrainian language / English language)	4	differential credit	1. Three-dimensional object-oriented software, selection of architectural and construction structures of the building, formation of drawings for printing. 2. Project visualization. 3. Additional and special features of three-dimensional object-oriented software.
OEC P4.2	Architectural and urban planning in the conditions of the historical environment: School of Arts (Ukrainian language / English language)	6	differential credit	1. Pre-project analysis. 2. Development of functional and volume-spatial solutions taking into account regulatory requirements. 3. Art school project in the historical quarter
OEC P4.3	Architectural and urban planning in the conditions of the historical environment: Museum	5	differential credit	1. Description and analysis of the design situation. 2. Approval of the sketch.

	(Ukrainian language / English language)			3. Development and design of the project.
OEC P4.4	Architectural and urban planning: Reconstruction of the historical quarter (Ukrainian language / English language)	5	differential credit	1. Determination of the design situation for the reconstruction of the historical quarter 2. Urban planning conditions for the design of residential buildings 3. Development of the master plan of the historical quarter
OEC P4.5	Architectural and urban planning: Project of a residential group of medium storeys (Ukrainian language / English language)	4	differential credit	1. Normative requirements for the design of medium-storey housing 2. Options for modeling living space 3. Development of an architectural solution for a residential group in the structure of a historical quarter
OEC P4.6	Architectural and urban planning: Comprehensive studies of architectural monuments. (Ukrainian language / English language)	5	differential credit	1. Natural studies and previous works. 2. Comprehensive studies of architectural monuments. 3. Drafting and protection of the project
OEC P4.7	Architectural and urban planning: Sketch project of restoration of the architectural monument. (Ukrainian language / English language)	5	differential credit	1. Working hypothesis of the graphic reconstruction of the architectural monument. 2. Graphic reconstruction of the architectural monument 3. Drafting and protection of the project
OEC P4.8	Architectural and urban planning in the conditions of the historical environment (Ukrainian language / English language)	6	differential credit	1. Analysis of the design situation 2. Approval of sketches proposals 3. Development and design of the project
	<b>Together for block 4</b>	<b>40,0</b>		
<b>Block P5. Architectural design and 3D modeling</b>				
OEC P5.1	Software tools for designing and 3D layout of architectural objects	4	differential credit	1. Planar composition. Work with digital images, vector graphics in the program. 2. Two-dimensional modeling, rendering of drawings of floor plans, facades, sections and setting dimensions. 3. 3D modeling in architectural design.
OEC P5.2	Architectural design: Residential district for 10,000 residents	6	differential credit	1. Selection of a site for design and pre-design analysis of a residential area for 10,000 residents. 2. Concept and development of a general plan of a residential area for 10,000 residents.

				3. Spatial compositional and functional solution of the central part of the residential building district
OEC P5.3	Architectural design: Multifunctional residential complex	5	differential credit	1. Pre-project analysis of the territory 2. Development of a functional and compositional solution of the master plan of a multifunctional residential complex. 3. Spatial and compositional solution of a multifunctional residential complex.
OEC P5.4	Architectural design: General or specialized educational institution	5	differential credit	1. Modern trends in the design of general or specialized educational institutions. 2. Development of the master plan of a general or specialized educational institution. 3. Architectural and planning decision of a general educational or specialized educational institution.
OEC P5.5	Architectural design: Layout of a general or specialized educational institution	4	differential credit	1. Modern and promising trends in the creation of layouts using traditional and innovative technologies. 2. Development of the layout of a general or specialized educational institution. 3. Layout design of a general or specialized educational institution.
OEC P5.6	Architectural design: Commercial and entertainment building	5	differential credit	1. Pre-project analysis and options for the functional planning solution of the territory of the shopping and entertainment complex. 2. Spatial and compositional solution of a commercial and entertainment building. 3. Detailed development of drawings of a commercial and entertainment facility.
OEC P5.7	Architectural design: Interior of a shopping and entertainment building	5	differential credit	1. Modern architectural and design techniques for building the interior space of a commercial and entertainment facility. 2. Variable sketch design of the interior space of modern shopping and entertainment complexes. 3. Design concept of the interior space of a commercial and entertainment facility.
OEC P5.8	Architectural design and layout	6	differential credit	1. Pre-project analysis of the territory and variable modeling of the volumetric and compositional solution of the object.



				<p>2. Development of the general plan of the territory and functional planning solution of the projected object.</p> <p>3. Development and detailing of the volumetric and compositional solution of the design object, graphic and three-dimensional design of the project solution.</p>
	<b>Together for block 5</b>	<b>40,0</b>		
<b>The total amount of sample components:</b>		<b>60,0</b>		

## 2.2. Structure of optional components by semesters

Description of the logical sequence of studying the components of the educational program by semester

1	2	3	4	5	6	7	8
		<i>One to choose</i>	<i>One to choose</i>	<i>One block to choose from</i>			
		<i>Business foreign language: written communication 4 cr. ECTS/different credit or Local history 4 cr. ECTS/different credit or History of Ukrainian Culture 4 cr. ECTS/different credit or Language training (for foreign citizens) 4 cr. ECTS/different credit або Legal principles of personal data protection and cyber security 4 cr. ECTS/different credit</i>	<i>Business foreign language: oral communication 4 cr. ECTS/different credit or Culturology 4 cr. ECTS/different credit or Ethics and aesthetics 4 cr. ECTS/different credit or Language training (for foreign citizens) 4 cr. ECTS/different credit or Professional rhetoric</i>	<b>Block OP 1 – Foreign language (special course)</b>			
				<i>Foreign language (special course) 4 cr. ECTS/different credit</i>	<i>Foreign language (special course) 4 cr. ECTS/different credit</i>	<i>Foreign language (special course) 4 cr. ECTS/different credit</i>	
				<b>Block OP 2. Modern trends in architecture</b>			
				<i>Architecture of the latest era 4 cr. ECTS/different credit</i>	<i>Basics of interior design 4 cr. ECTS/different credit</i>	<i>Barrier-free architecture 4 cr. ECTS/different credit</i>	
				<b>Block OP 3. Innovative technologies in architecture</b>			
				<i>Inclusive architectural environment 4 cr. ECTS/different credit</i>	<i>Visual and informational environment of the modern city 4 cr. ECTS/different credit</i>	<i>Light and color in architecture and design 4 cr. ECTS/different credit</i>	
				<b>Block OP 4. Development of urban areas</b>			
				<i>Urban planning analysis of territories 4 cr. ECTS/different credit</i>	<i>Typology of urban planning objects 4 cr. ECTS/different credit</i>	<i>Barrier-free architectural and urban planning environment 4 cr. ECTS/different credit</i>	
				<b>Block OP 5. Architectural monuments and their restoration</b>			

			<i>4 cr. ECTS/different credit</i>	<i>Chemistry in restoration</i>  <i>4 cr. ECTS/different credit</i>	<i>The basics of monument studies</i>  <i>4 cr. ECTS/different credit</i>	<i>Methods of researching architectural monuments</i>  <i>4 cr. ECTS/different credit</i>	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
				<b>Block OP 6. Formation of modern architectural objects</b>			
				<i>Modern concepts of architectural design</i>  <i>4 cr. ECTS/different credit</i>	<i>Evolution of compositional thinking in architecture</i>  <i>4 cr. ECTS/different credit</i>	<i>Biomorphic and parametric architectural formation</i>  <i>4 cr. ECTS/different credit</i>	
				<b>Block OP 7. Language training (for foreign citizens)</b>			
				<i>Language training (for foreign citizens)</i> <i>4 cr. ECTS/different credit</i>	<i>Language training (for foreign citizens)</i> <i>4 cr. ECTS/different credit</i>	<i>Language training (for foreign citizens)</i> <i>4 cr. ECTS/different credit</i>	
				<i>One block to choose from</i>			
				<b>Block P 1. Architecture of buildings and structures</b>			
				<i>Architectural design of buildings and structures: Residential settlement for 6-8 thousand inhabitants</i>  <i>6 cr. ECTS/different credit</i>	<i>Architectural design of buildings and structures: Cultural and entertainment building with an auditorium for 300 seats</i>  <i>5 cr. ECTS/different credit</i>	<i>Architectural design of buildings and structures: **** category hotel for 200-400 places</i>  <i>5 cr. ECTS/different credit</i>	<i>Architectural design of buildings and structures</i>  <i>6 cr. ECTS/different credit</i>
				<i>Architectural design of buildings and structures: Residential</i>	<i>Architectural design of buildings and structures:</i>	<i>Architectural design of buildings and</i>	

				<i>group with medium-rise buildings 5 cr. ECTS/different credit</i>	<i>Multifunctional park of regional significance 4 cr. ECTS/different credit</i>	<i>structures: Public purpose interior 5 cr. ECTS/different credit</i>	
					<i>Software tools for designing architectural objects 4 cr. ECTS/different credit</i>		

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Block P 2. Design of the architectural environment</b>							
				<i>Architectural and design planning - Design of a residential complex - "Townhouse"  6 cr. ECTS/different credit</i>	<i>Architectural and design planning: Design of a festive event  5 cr. ECTS/different credit</i>	<i>Architectural design: Design of a public facility  5 cr. ECTS/different credit</i>	<i>Architectural design using innovative technologies  6 cr. ECTS/different credit</i>
				<i>Architectural design: Design of a multifunctional cultural object  5 cr. ECTS/different credit</i>	<i>Architectural design: Design of a local private environment  4 cr. ECTS/different credit</i>	<i>Architectural design: Design of an office building  5 cr. ECTS/different credit</i>	
					<i>Architectural design software tools 4 cr. ECTS/different credit</i>		
<b>Block P 3. Urbanism and City Planning</b>							

				<i>Architectural design: Cottage village for 6,000 residents in a suburban area</i>	<i>Architectural design: School for 500-700 students</i>	<i>Architectural design Open sports complex (cultural and entertainment) complex</i>	<i>Architectural design of residential and public buildings in the urban and natural landscape</i>
				<i>6 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	<i>6 cr. ECTS/different credit</i>
				<i>Architectural design: Building with a sports and recreation function</i>	<i>Architectural design: City Garden</i>	<i>Architectural design: Residential group with medium-rise buildings</i>	
				<i>5 cr. ECTS/different credit</i>	<i>4 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	
					Програмні засоби у містобудуванні <i>4кр. ЄКТС/диф.залик</i>		
<b>Block P 4. Reconstruction, restoration of architectural objects</b>							
				<i>Architectural and urban planning in the conditions of the historical environment: School of Arts</i>	<i>Architectural and urban planning: Reconstruction of the historical quarter</i>	<i>Architectural and urban planning: Comprehensive studies of architectural monuments.</i>	<i>Architectural and urban planning in the conditions of the historical environment</i>
				<i>6 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	<i>6 cr. ECTS/different credit</i>

				<i>Architectural and urban planning in the conditions of the historical environment: Museum</i>	<i>Architectural and urban planning: Project of a residential group of medium storeys</i>	<i>Architectural and urban planning: Sketch project of restoration of the architectural monument.</i>	
				<i>5 cr. ECTS/different credit</i>	<i>4 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	
					<i>Software tools for designing and reconstructing architectural objects</i>		
					<i>4 cr. ECTS/different credit</i>		
<b>Block P 5. Architectural design and 3D modeling</b>							
				<i>Architectural design: Residential district for 10,000 residents</i>	<i>Architectural design: General or specialized educational institution</i>	<i>Architectural design: Commercial and entertainment building</i>	<i>Architectural design and layout</i>
				<i>6 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	<i>5 cr. ECTS/different credit</i>	<i>6 cr. ECTS/different credit</i>
				<i>Architectural design: Multifunctional residential complex</i>	<i>Architectural design: Layout of a general or specialized educational institution</i>	<i>Architectural design: Interior of a shopping and entertainment building</i>	
				<i>5 cr. ECTS/different credit</i>	<i>4 cr. ECTS/different credit</i>		

						<i>5 cr. ECTS/different credit</i>	
					<i>Software tools for designing and 3D layout of architectural objects 4 cr. ECTS/different credit</i>		

### 3. Matrix of correspondence of program competencies to selective components of the educational program

	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	SCC7	SCC8	OPC1	OPC2	OPC3	OPC4	OPC5	OPC6	OPC7	OPC8	OPC9	OPC10	OPC11	OPC12	OPC13	OPC14	OPC15	OPC16	OPC17	OPC18	OPC19	OPC20	OPC21	OPC22
SC 1	+																													
SC 2		+																												
SC 3			+																											
SC 4				+																										
SC 5					+																									
SC 6	+																													
SC 7						+																								
SC 8							+																							
SC 9				+																										
SC 10								+																						
SC C1.1									+																					
SC C1.2									+																					
SC C1.3									+																					
SC C2.1										+																				
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SC C4.3												+																		
SC C5.1													+																	
SC C5.2													+																	
SC C5.3													+																	
SC C6.1														+																
SC C6.2														+																
SC C6.3														+																
SC C7.1															+															



	SCC1	SCC2	SCC3	SCC4	SCC5	SCC6	SCC7	SCC8	OPC1	OPC2	OPC3	OPC4	OPC5	OPC6	OPC7	OPC8	OPC9	OPC10	OPC11	OPC12	OPC13	OPC14	OPC15	OPC16	OPC17	OPC18	OPC19	OPC20	OPC21	OPC22
SC C7.2															+															
SC C7.3															+															
SC III.1																+														
SC III.2																	+	+												
SC III.3																	+	+												
SC P1.4																	+	+												
SC P1.5																	+	+												
SC P1.6																	+	+												
SC P1.6																	+	+												
SC P1.7																	+	+												
SC P1.8																	+	+												
SC P2.1																			+											
SC P2.2																				+		+								
SC P2.3																				+		+								
SC P2.4																				+		+								
SC P2.5																				+		+								
SC P2.6																				+		+								
SC P2.7																				+		+								
SC P2.8																				+		+								
SC P3.1																							+							
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SC P4.5																											+	+		
SC P4.6																											+	+		
SC P4.7																											+	+		
SC P4.8																												+		

	SCC 1	SCC 2	SCC 3	SCC 4	SCC 5	SCC 6	SCC 7	SCC 8	OPC 1	OPC 2	OPC 3	OPC 4	OPC 5	OPC 6	OPC 7	OPC 8	OPC 9	OPC 10	OPC 11	OPC 12	OPC 13	OPC 14	OPC 15	OPC 16	OPC 17	OPC 18	OPC 19	OPC 20	OPC 21	OPC 22											
SC P5.1																																+									
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SC P5.5																																									
SC P5.6																																									
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SC P5.8																																									

**4. Матриця забезпечення результатів навчання (SLO)  
Відповідними вибірковими освітніми компонентами**

	S L O 1	S L O 2	S L O 3	S L O 4	S L O 5	S L O 6	S L O 7	S L O 8	S L O 9	S L O 10	S L O 11	S L O 12	S L O 13	S L O 14	S L O 15	S L O 16	S L O 17	S L O 18	S L O 19	S L O 20	S L O 21	S L O 22	S L O 23	S L O 24	S L O 25	S L O 26	S L O 27	S L O 28	S L O 29	S L O 30	S L O 31					
SC 1	+																																			
SC 2		+																																		
SC 3			+																																	
SC 4				+																																
SC 5					+																															
SC 6						+																														
SC 7							+																													
SC 8								+																												
SC 9				+																																
SC 10									+																											
SC C1.1										+																										
SC C1.2										+																										
SC C1.3										+																										
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SC C5.1														+																						
SC C5.2														+																						
SC C5.3														+																						
SC C6.1															+																					
SC C6.2															+																					

	S L O 1	S L O 2	S L O 3	S L O 4	S L O 5	S L O 6	S L O 7	S L O 8	S L O 9	S L O 10	S L O 11	S L O 12	S L O 13	S L O 14	S L O 15	S L O 16	S L O 17	S L O 18	S L O 19	S L O 20	S L O 21	S L O 22	S L O 23	S L O 24	S L O 25	S L O 26	S L O 27	S L O 28	S L O 29	S L O 30	S L O 31					
SC C6.3															+																					
SC C7.1																+																				
SC C7.2																+																				
SC C7.3																+																				
SC P1.1																	+	+	+																	
SC P1.2																		+	+																	
SC P1.3																		+	+																	
SC P1.4																		+	+																	
SC P1.5																		+	+																	
SC P1.6																		+	+																	
SC P1.7																		+	+																	
SC P1.8																		+	+																	
SC P2.1																						+	+	+												
SC P2.2																							+	+												
SC P2.3																							+	+												
SC P2.4																							+	+												
SC P2.5																							+	+												
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SC P2.8																							+	+												
SC P3.1																									+	+	+									
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