MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

KYIV NATIONAL UNIVERSITY
OF CONSTRUCTION AND ARCHITECTURE

EDUCATIONAL AND SCIENTIFIC PROGRAMME

"Architecture of buildings and structures"
the name of the educational program

second (Master's) level of higher education

in speciality 191 "Architecture and urban planning"

fields of knowledge 19 "Architecture and construction"

Qualification: Master of Architecture and Urban Planning

APPROVED

Scientific council of
Kyiv National University
of Construction and Architecture
with changes
Protocol No. 55 dated 23/13/2022
The educational program will be implemented from September 1, 2023.

Chairman of the Academic Council
_____ *P.M. Kulikov*
"____" _____ 2023

Kyiv – 2023

1. Profile of the educational and professional program "Architecture and Urban Planning" in speciality 191 "ARCHITECTURE AND URBAN PLANNING"

1 – General information	
Full name of the higher educational institution and structural division	Kyiv National University of Construction and Architecture, Faculty of architecture
Degree in higher education and the title of the qualification in the original language	Master's degree Master of Architecture and Urban Planning
The official name of the educational program	Architecture of buildings and structures
Type of diploma and scope of the educational and scientific program	Master's degree diploma, single, 120 ECTS credits, term of study - 1 year and 9 months Master's degree diploma, single, study period 1 year 9 months. - Scope of the educational program: - on the basis of complete general secondary education is 120 ECTS credits; - on the basis of the "bachelor" degree (educational and qualification level "bachelor"), the higher education institution has the right to recognize and re-enrol no more than 60 ECTS credits obtained within the framework of the previous bachelor's educational program; - the number of educational components (in ECTS credits) aimed at the formation of competencies defined by the standard of higher education is 90 ECTS credits; - the number of practices of 9 ECTS credits
Availability of accreditation	Certificate of accreditation of the educational and scientific program "Architecture of Buildings and Structures" No. 5073, valid until July 1, 2028
Cycle/level	National Qualifications Framework of Ukraine – level 7, QF-EHEA – the second cycle, EQF-LLL – Level 7
Prerequisite	Possession of a bachelor's, a specialist, or a master's degree. Admission conditions are determined by the "Rules of admission to the Kyiv National University of Construction and Architecture", approved by the academic council.

Language(-s) of instruction	Ukrainian
Validity period of academic program	5 years (from the date of accreditation until the next AP update)
Internet address of permanent placement of the description of the academic program	www.knuba.edu.ua
2 – Purpose of educational program	
Training of highly qualified specialists for creative design and research activities in the field of architecture and urban planning, landscape architecture, capable of designing objects of the architectural environment, developing projects for the reconstruction of buildings and structures, using modern technologies and materials.	
3 – Description of educational program	
Subject area (field of knowledge, specialty)	Field of knowledge: 19 "Architecture and Construction" Specialty: 191 "Architecture and urban planning" Subject of study and activity: Objects of architecture and urban planning – houses and structures of residential, communal, industrial and other purposes; their interiors and equipment; architectural and urban-planning complexes; projects of improvement, garden and landscape architecture, monumental and decorative-applied art; territories (parts of territories) of administrative-territorial units and settlements; reconstruction and restoration of objects of architecture and urban planning, theory of architectural and urban planning activities. Learning goals: Training of specialists capable of solving complex specialized tasks in conceptual, experimental, scientific-theoretical and practical architectural and urban planning activities. Theoretical content of the subject area: Knowledge of theory, history of architecture and urban planning, methods of scientific research, concepts and principles of architectural and urban planning activities. Methods, techniques and technologies of collecting, systematizing information, conducting physical measurements, formulating and justifying concepts, hypotheses; modeling, methods of research and design of objects of architecture and urban planning, technologies of author supervision, modern digital technologies. Instruments and equipment: Cartographic materials, technical means of surveying objects, architectural and project-drawing equipment, information

	processing systems, software for modeling objects of architecture and urban planning, materials and instruments for modeling.
Orientation of the academic program	Academic program. Main orientation of the program: applied scientific. The program is aimed at mastering knowledge, skills and abilities aimed at advanced training of specialists and scientists in the specialty "Architecture and Urban Planning" in the field of design, reconstruction of civil, industrial buildings and structures.
Main focus of the academic program	Mastering certain competencies in the field of architecture and urban planning, ability to do creative project organizational and management activities in design, research organizations and educational institutions.
Features of the academic program	The program includes the current global trends in the development of "Architecture and Urban Planning" and covers courses that involve a combination of theoretical knowledge with practical skills and skills for future professional activity. The cycle of professional and practical training ensures the possibility of successful work in the field of "Architecture and construction".
4 – Graduates' suitability for employment and further education	
Suitability for employment	Institutions and organizations working in the field of architecture, urban planning, landscape architecture, reconstruction and restoration of architectural objects, architectural environment design and construction, state and local self-government bodies, higher education institutions.
Further education	Eligible for mastering "Doctor of Philosophy" programs, interdisciplinary programs related to architecture and urban planning. The possibility of studying under the program of the third cycle of FQ-EHEA, level 8 of EQF-LLL and level 8 of the NQF of Ukraine.
5 – Teaching and assessment	
Teaching and training	The main approaches, methods and technologies of learning provided by the educational program are combined with problem-oriented learning, student-centered learning, self-learning, individual learning, learning during the period of industrial and educational practices. The main teaching methods are explanatory and illustrative, reproductive, problem presentation method, heuristic, research, experimental, visualization method.
Assessment	The assessment of students' knowledge and practical skills is conducted in accordance with the Regulation "On Criteria for

	Assessing Students' Knowledge at the Kyiv National University of Civil Engineering and Architecture". The system of assessment the quality of student training includes: entry, formative, semester, summative, rector's tests and examination of higher education applicants. The formative test is conducted during a semester during lecture, practical, laboratory, and seminar classes, and is evaluated by the sum of points scored. The main purpose of formative test is to provide feedback between the scientific and pedagogical workers and students in the learning process, to ensure management of students' educational motivation. The formative test is conducted in the form of an oral test or written express test. The semester summative test is conducted in the form of an exam or credit (grading) determined by the curriculum in the terms provided by the schedule of the educational process, and in the amount of educational material determined by the academic course working program. The examination of higher education applicants is conducted in the form of a public defence of an qualification master's thesis. The qualification thesis is performed by a student independently under the guidance of a teacher based on theoretical knowledge and practical skills acquired during the entire period of study. The qualification thesis involves solving a complex specialized design task in architecture and urban planning based on the application of basic theories and methods of fundamental and applied sciences. The scope and structure of the thesis is established by the higher education institution. The thesis must be checked for plagiarism in accordance with the procedure defined by the higher education institution's system of ensuring the educational activities quality and higher education quality.
6 – Program Competencies	
Special (Professional Competencies (PC))	**PC01.** The ability to integrate knowledge and solve complex problems of architecture and urban planning in broad or multidisciplinary contexts. **PC02.** The ability to solve architectural and urban planning problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility. **PC03.** The ability to analyze, develop and implement architecture and urban planning solutions taking into account sociodemographic, national-ethnic, natural-climatic, engineering-technical factors and sanitary-hygienic, safety,

	energy-saving, ecological, technical-economic requirements. **PC04.** The ability to continue learning with a high degree of autonomy. **PC05.** The ability to develop and implement projects in the field of architecture and urban planning, conduct conceptual architectural design of buildings, structures and their complexes. **PC06.** The ability to analyze international and domestic experience, and collect, accumulate and use information necessary for solving research and innovation problems in the field of architecture and urban planning. **PC07.** The ability to project modeling and research of conceptual, natural and computer models of objects of architecture and urban planning. **PC08.** The ability to develop tasks for architecture and urban planning, to organize the design process using data related to field surveys, measurement works, urban planning calculation of the design object. **PC09.** The ability to manage work processes in the field of architecture and urban planning, which are complex, unpredictable and require new strategic approaches. **PC10.** The ability to generate new ideas and develop innovative solutions in the field of architecture and urban planning. **PC11.** The ability to critically consider the problems of architecture and urban planning. **PC12.** The ability to analyze and use information on legislative documents, state construction codes and rules in architectural and urban planning activities. **PC13**. The ability to use modern and innovative types of constructive and engineering systems and networks in architecture and urban planning, taking into account the requirements of civil protection. **PC14.** The ability to plan and implement scientific and applied research in the field of architecture and urban planning. **PC15.** The ability to implement scientific and pedagogical activities in institutions of higher education.
7 – Resource Support for Program Implementation	
Staffing	The quantitative and qualitative indicators of the level of scientific and professional activity of scientific and pedagogical workers ensure the educational process

	according to the educational program, fully comply with the licensing conditions for conducting educational activities of educational institutions. Scientific and pedagogical workers have academic titles and degrees. The involvement of teachers who speak foreign languages at the B2 level and above (confirmation of appropriate certificates and diplomas of education).
Material and Technical Support	The quantitative indicators of material and technical support fully correspond to the licensing conditions for conducting educational activities of educational institutions. The personal computers connected to local networks with access to the Internet are equipped with modern programs. The multimedia rooms, language rooms, free access to the Internet throughout the university, including in reading rooms, laboratories, access to scientific and metric databases and reference databases SCOPUS and Web of Science are used in education and research.
Informational and Educational and Methodological Support	The volume, composition and quality of informational and educational and methodological support fully correspond to the license conditions for conducting educational activities of educational institutions. The educational, educational-methodical and library-informational resources of the university provide the educational process and guarantee the possibility of high-quality development of the educational program. The university's own library with a reading room and a research library meet the needs of students and scientists. The specialized professional literature is also presented in the architectural library located in the building of the Faculty of Architecture of KNUCA. The possibility of using the Microsoft Teams corporate platform in the Internet service Microsoft Office 365 for students and teachers of KNUCA has been provided.
8 – Academic Mobility	
National Credit Mobility	The university provides for the possibility of national credit mobility in accordance with the "Regulations on the Organization of the Educational Process of KNUCA". Re-enrollment of credits received in other educational institutions of Ukraine is allowed.
International Credit Mobility	The university provides for the possibility of international credit mobility in accordance with the "Regulations on the organization of the educational process of KNUCA" (concluded agreements on international academic mobility Erasmus+, double graduation, international projects

	involving student training).
Education of Foreign Applicants for Higher Education	The university provides conditions for admission and training of foreign students of higher education in accordance with the "Regulations on the Organization of the Educational Process of KNUCA".

Programme learning outcomes

- Have knowledge of basic concepts, terms and meanings, the language of professional communication in the field of architecture and urban planning: the theory of architecture, architecture of buildings and structures, architectural environment design, reconstruction, restoration of architectural objects, landscape architecture, information technology in architecture.
- Have knowledge of the regulatory framework of architectural and urban planning, architectural, environmental and landscape projects, reconstruction and restoration projects of existing facilities.
- Use software, IT technologies and Internet resources for information support of architectural and urban planning research and design. To form data of pre-design analysis of architectural and town-planning objects and territories allocated for building, reconstruction or restoration.
- To possess methods of art-compositional, figurative thinking and innovative means and methods of engineering, art and computer graphics for their application in modern architectural and town-planning. designing.
- Develop complex architectural and town-planning projects of new construction and projects of reconstruction and restoration of existing objects.
- To use the results of creative communication with specialists of related specialties, to combine independent and collective work on complex architectural and town-planning projects in order to increase their efficiency and professional qualities.
- Improve architectural and urban planning solutions based on the results of evaluation of options for structural and engineering systems and networks. To substantiate safety, sanitary-hygienic, ecological, engineering-technical and technical-economic normative requirements and indicators in architectural and town-planning designing.
- Demonstrate the impact of energy efficient and other innovative technologies on the adoption of integrated architectural and urban planning decisions.
- Initiate participation in the development of competitive projects, form project presentations for a professional audience and public discussion aimed at improving the quality of architectural, urban and landscape environment. To

develop professional knowledge through self-education, participation in architectural and town-planning competitive designing, in scientific and technical actions.

- Provide responsibility for the effectiveness and consequences of decision-making in the field of architecture and urban planning, adhere to the basics of professional ethics. Achieve the implementation in a timely manner of all stages and stages of architectural and urban design, development of all sections of the complex project and explanatory note, to carry out author's supervision.
- Develop the basic principles, principles and methods of architectural and urban planning. To form concepts and theoretical bases of scientific researches in the field of architecture and town-planning. To form theories and practical approaches of designing and forecasting, reconstruction and restoration of architectural and town-planning, architectural-environmental and landscape objects with application of innovative methods, international and domestic experience.
- Identify the factors and requirements that determine the prerequisites for the formation of an innovative architectural and urban environment. Identify stages and directions of historical development of classical and modern styles in architectural and urban planning, design and landscape art.

Код освітнього компоненту (за наявності) / Component code (if available)	Назва освітнього компоненту або результатів навчання / Component title or learning outcome	Кількість кредитів Європейської кредитної трансферно-накопичувальної системи / Number of ECTS credits
1	2	3
Обов'язкові компоненти / Mandatory components		
ОК.01	Законодавство, архітектурно-проектна справа та інтелектуальна власність / Legislation, architectural and design business and intellectual property	3,0
ОК.02	Сучасні проблеми архітектури і містобудування / Current issues of architecture and urban planning	3,0
ОК.03	Наукова іноземна мова / Scientific foreign language	3,0
ОК.04	Психологія і педагогіка / Psychology and pedagogy	3,0
ОК.05	Менеджмент і організація будівництва / Construction management and organization	3,0
ОК.06	Курсові роботи (проекти) / Academic year papers	18,0
ОК.07	Критика сучасних архітектурних теорій | Critique of modern architectural design theories	3,0
ОК.08	Інженерне обладнання територій і транспорт/ Engineering development of territories and transport	3,0

ОК.09	Архітектурна екологія/ Architectural ecology	3,0
ОК.10	Цивільний захист / Civil defense	3,0
ОК.11	Сучасні конструкції будівель і споруд / Modern constructions of buildings and structures	3,0
ОК.12	Методика наукових досліджень, ліцензування і патентування наукової продукції/ Methods of scientific research, licensing and patenting of scientific products	3,0
	Практики / Practical training	
ОК.13	Проектна (виробнича) / Design project (field) practical training	6,0
ОК.14	Переддипломна / Pre-graduation practical training	3,0
	Атестація / Certification	
ОК.15	Атестаційна робота магістра / Graduation thesis	30,0
Загальний обсяг обов'язкових компонент/The total volume of mandatory components		**90**
Вибіркові компоненти / Selective components *(студент обирає дисципліни сумарним обсягом 30 кредитів / student chooses disciplines with a total volume of 30 credits)*		
ВК	Дисципліни вибіркової компоненти / Disciplines of the optional component	30
Загальний обсяг вибіркових компонент / The total amount of sample components		**30**
Загальна кількість кредитів Європейської кредитної трансферно-накопичувальної системи / Total number of ECTS credits		**120**