



APPROVED BY

Rector

A.V. Kovrov

04 2024

CURRICULUM

for Bachelor's degree

branch of knowledge **19 Architecture and construction**

specialty **192 Construction and Civil Engineering**

educational and professional program **Construction and Civil Engineering**

Educational degree - Bachelor

Training period – **3 years and 10 months**

Qualification – **Bachelor of Construction and Civil Engineering**

SCHEDULE OF THE EDUCATIONAL PROCESS

SCHEDULE OF THE EDUCATIONAL PROCESS																																																				
Year	Study weeks																																																			
	1	2	4	6	8	10	12	14	16	18	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52									
I										V	S	S	V						18													S	S	S	V	V	V	V	V	V	V	V	V	V	V							
II										V	S	S	V						17													S	S	P	P	P	V	V	V	V	V	V	V	V	V							
III										V	S	S	V						17													S	S	P	P	P	V	V	V	V	V	V	V	V	V							
IV									S	V									13						S	QW	QW	QW	QW	QW	QW	QW	QW	C	C																	

Summary budget of time (weeks)

Year	Theoretical training	Examination session	Certification	Practice			Vacations	Qualification work	Total
				Educational	Technological	Professional			
I	35	6		*			11		52
II	34	5			3		10		52
III	34	5				3	10		52
IV	27	3	2				2	9	43

PRACTICES

No	Name	Type	Semester	Weeks
1	Engineering Geodesy (practicum)	EP*	2	
2	Technological	TP	4	3
3	Professional	PP	6	3

* is held according to the schedule

CERTIFICATION

Educational degree	Type of certification	Semester
Bachelor	Defense of qualification work	8

Note:

- ☐ – Theoretical training
- ☐ S – Examination session
- ☐ V – Vacations
- ☐ EP – Educational practice
- ☐ TP – Technological practice
- ☐ PP – Professional practice
- ☐ QW – Performing qualification work
- ☐ C – Certification

CURRICULUM

Number in the curriculum	Name of the academic discipline	Study time		Academic workload of students (hours)						Individual tasks					Form of control		Distribution of study time per semester (in ECTS credits)							
		Credits ECTS	Academic hours	Classroom training				Individual classes	Independent work	Course projects	Course works	Calculated and graphical works	Control works	Essays, classroom tests	Examination	Credit	I year		II year		III year		IV year	
				Total	Lectures	Laboratory classes	Practical classes										Semester		Semester		Semester		Semester	
																	1,0	2,0	3,0	4,0	5,0	6,0	7,0	8,0
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18,0	19,0	20,0	21,0	22,0	23,0	24,0	25,0
CC	COMPULSORY COMPONENTS	155,0	4650,0	2048,0	898,0	168,0	978,0	0,0	2302,0	0,0	4,0	33,0	18,0	15,0	19,0	26,0	30,0	30,0	33,0	15,0	22,0	5,0	8,0	12,0
	General components	18,0	540	274	80	0	194		266	0	0	0	1	5	4	3	9,0	5,0	2,0		2,0			
CC1	History of Ukraine and Ukrainian culture	4,0	120	64	32		32		56				1	2	1		4,0							
CC2	Ukrainian language (professional)	3,0	90	32			32		58					2	1		3,0							
CC3	Philosophy	3,0	90	48	32		16		42						1			3,0						
CC4	Foreign language (professional)	6,0	180	98			98		82						1	2	2,0	2,0	2,0					
CC4.1	Foreign language (professional) 1	2,0	60	34			34		26							1	2,0							
CC4.2	Foreign language (professional) 2	2,0	60	34			34		26							1		2,0						
CC4.3	Foreign language (professional) 3	2,0	60	30			30		30						1				2,0					
CC5	Law	2,0	60	32	16		16		28					1		1					2,0			
	Special (professional) components	137,0	4110	1774	818	168	784	0	2036	0	4	33	17	10	15	23	21,0	25,0	31,0	15,0	20,0	5,0	8,0	12,0
	Components of natural science training	39,0	1170	646	298	68	280	0	524			8	9	4	5	6	14,0	15,0	8,0		2,0			
CC6	Higher Mathematics	13,0	390	240	96		144		150				3		2	1	4,0	5,0	4,0					
CC6.1	Higher Mathematics 1	4,0	120	80	32		48		40				1			1	4,0							
CC6.2	Higher Mathematics 2	5,0	150	80	32		48		70				1		1			5,0						
CC6.3	Higher Mathematics 3	4,0	120	80	32		48		40				1		1				4,0					

CC7	Physics	7,0	210	124	64	28	32		86				1		1	1	3,0	4,0							
CC7.1	Physics 1	3,0	90	60	32	12	16		30							1	3,0								
CC7.2	Physics 2	4,0	120	64	32	16	16		56				1		1			4,0							
CC8	Chemistry	4,0	120	56	32	24			64				2		1		4,0								
CC9	Informatics	3,0	90	48	16		32		42			2	1			1	3,0								
CC10	Theoretical mechanics	8,0	240	114	58	0	56		126			5	0	4	1	1		4,0	4,0						
CC10.1	Theoretical mechanics 1	4,0	120	56	24		32		64			2		2	1			4,0							
CC10.2	Theoretical mechanics 2	4,0	120	58	34		24		62			3		2		1			4,0						
CC11	Basics of ecology	2,0	60	32	16	16			28				1			1		2,0							
CC12	Numerical methods for solving engineering problems	2,0	60	32	16		16		28			1	1			1					2,0				
	Components of professional orientation	73,0	2190	1080	520	52	504	0	1110	0	4	25	8	6	10	14	7,0	7,0	23,0	10,0	18,0	0,0	8,0	0,0	
CC13	Engineering graphics	6,0	180	88	24		64		92			1	5		1	1	4,0	2,0							
CC13.1	Engineering graphics 1	4,0	120	56	24		32		64				5		1		4,0								
CC13.2	Engineering graphics 2	2,0	60	32			32		28			1				1		2,0							
CC14	Engineering geodesy (general course)	3,0	90	40	16	8	16		50			1			1		3,0								
CC15	Regulatory control in construction	2,0	60	32	16		16		28			1				1		2,0							
CC16	CAD in construction	3,0	90	48			48		42			2	1			1		3,0							
CC17	Construction equipment	2,0	60	32	16		16		28			1				1			2,0						
CC18	Electrical engineering in construction	3,0	90	48	24	10	14		42			1				1			3,0						
CC19	Technical mechanics of liquid and gas	3,0	90	50	24		26		40			1				1			3,0						
CC20	Construction materials science	4,0	120	56	32	16	8		64			1			1				4,0						
CC21	Strength of materials	8,0	240	98	58	10	26		142			6		6	1	1			4,0	4,0					
CC21.1	Strength of materials 1	4,0	120	50	34	6	10		70			3		3		1			4,0						
CC21.2	Strength of materials 2	4,0	120	48	24	4	16		72			3		3	1					4,0					

CC22	Architecture of buildings and structures	4,0	120	56	32		24		64		1				1				4,0					
CC23	Engineering geology and fundamentals of soil mechanics	3,0	90	44	24	8	12		46			1			1				3,0					
CC24	Cities planning and transport	2,0	60	32	16		16		28		1					1				2,0				
CC25	Water supply and sewerage	2,0	60	32	16		16		28			1				1				2,0				
CC26	Basements and foundations	2,0	60	32	16		16		28			1				1				2,0				
CC27	Heating and gas supply and ventilation	2,0	60	32	16		16		28			1				1					2,0			
CC28	Construction mechanics	4,0	120	52	24		28		68			3			1						4,0			
CC29	Building structures	4,0	120	64	32		32		56		1				1						4,0			
CC30	Technology of building production	4,0	120	56	32		24		64		1				1						4,0			
CC31	Labor protection and life safety	4,0	120	64	32		32		56				2			1					4,0			
CC32	Industrial base of construction	2,0	60	32	16		16		28			1				1							2,0	
CC33	Organization of construction	3,0	90	44	30		14		46			1			1								3,0	
CC34	Economics of construction	3,0	90	48	24		24		42			1				1							3,0	
	Practices	13,0	390	48	0	48	0	0	42							3		3,0		5,0		5,0		
EP	Engineering geodesy (practicum)	3,0	90	48		48			42							1		3,0						
TP	Technological practice	5,0	150													1				5,0				
PP	Professional practice	5,0	150													1						5,0		
QW	Qualification work	12,0	360						360															12,0
	FACULTATIVE COMPONENTS																							
FC1	Foreign language special course	4,0	120	64			64		56							2							2,0	2,0
FC1.1	Foreign language special course 1	2,0	60	32			32		28							1							2,0	
FC1.2	Foreign language special course 2	2,0	60	32			32		28							1								2,0
FC2	Physical training	12,0	360	256			256		104							4			3,0	3,0	0,0	0,0		
FC2.1	Physical training 1	3,0	90	64			64		26							1	3,0							

FC2.2	Physical training 2	3,0	90	64			64		26						1		3,0							
FC2.3	Physical training 3	3,0	90	64			64		26						1			3,0						
FC2.4	Physical training 4	3,0	90	64			64		26						1				3,0					
OC	OPTIONAL COMPONENTS	85,0	2550														0,0	0,0	0,0	12,0	8,0	25,0	22,0	18,0
	General components	6,0	180																2,0	2,0	2,0			
OC1	Optional discipline 1	2,0	60																2,0					
OC2	Optional discipline 2	2,0	60																	2,0				
OC3	Optional discipline 3	2,0	60																		2,0			
	Special (professional) components, including those from other educational programs	11,0	330																5,0	0,0	3,0	3,0		
OC4	Optional discipline 4	2,0	60																2,0					
OC5	Optional discipline 5	3,0	90																3,0					
OC6	Optional discipline 6	3,0	90																		3,0			
OC7	Optional discipline 7	3,0	90																			3,0		
1	Special (professional) components by profiling block Industrial and Civil Engineering	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
2	Special (professional) components by profiling block Architectural and Structural Engineering	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
3	Special (professional) components by profiling block Water Supply and Sewerage	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0

4	Special (professional) components by profiling block Organization of Technical Supervision in Construction	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
5	Special (professional) components by profiling block Heating and Gas Supply and Ventilation	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
6	Special (professional) components by profiling block Bridges and Transport Tunnels	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
7	Special (professional) components by profiling block Additive Technology	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
8	Special (professional) components by profiling block Design in Industrial and Civil Construction	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
9	Special (professional) components by profiling block BIM-engineering	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
10	Special (professional) components by profiling block Technology of Building Structures, Products and Materials	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
11	Special (professional) components by profiling block Automobile Roads	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0

12	Special (professional) components by profiling block Urban Construction and Infrastructure	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
13	Special (professional) components by profiling block Construction Project Management	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
14	Special (professional) components by profiling block Development of Construction	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
15	Special (professional) components by profiling block Energy Efficiency of Buildings and Energy Engineering	68,0	2040														0,0	0,0	0,0	5,0	6,0	20,0	19,0	18,0
	Total	240,0	7200,0														30,0	30,0	33,0	27,0	30,0	30,0	30,0	30,0

Vice-rector for scientific and pedagogical work

I. Azhaman

Head of the educational and methodological department

N. Shiryeva

Director of the Civil Engineering Institute

A. Kostyuk

Acting Director of the Construction and Technology Institute

O. Gara

Guarantor of the educational and professional program

Yu. Somina

Acting Director of the Institute of Hydraulic Construction and Civil Engineering

O. Lapina