

Curricular Structure of the Study Programme "Computer Science and Intelligent Systems" (in Ukrainian and English)

Course code	Educational Units and Courses	Semester	Form of Examination/ Assessment	Workload (hours)		ECTS credits	
				Contact Time	Self-Study Time		
	Unit 1.1 General training			780	660	48	
GT1	History and culture of Ukraine	1	Exam	32	58		
GT2	Ukrainian language (for professional purposes)	1	Exam	32	58		
GT5	Higher mathematics	1	Exam	80	100		
GT6	Physics	1	Exam	48	72		
GT3	Foreign language for professional purposes	1-2	Credit	120	60		
GT4	Fundamentals of humanitarian and philosophical knowledge in professional activity	2	Exam	28	62		
GT5	Higher mathematics	2	Exam	84	66		
GT7	Foreign language for professional communication	6-7, 8	Credit, Exam	168	12		
GT8	Physical education	1-6	Credit	188	172		
	Unit 1.2 Professional training			1540	2420	132	
PT1	Algorithmization and programming	1	Exam	96	54		
PT2	Fundamentals of computer science and artificial intelligence	1	Credit	64	56		
PT1	Algorithmization and programming	2	Exam	84	96		
PT4	Operating systems	2	Credit	56	64		
PT5	Algorithms and data structures	2	Credit	56	64		
PT24	Introductory practice at the "Innovation Campus"	2	Credit	0	90		
PT3	Probability theory and mathematical statistics	3	Exam	64	86		
PT19	Mathematical modeling and analysis of systems	3	Credit	64	86		
PT9	Databases	3	Exam	48	72		
PT10	Object-oriented programming	3	Exam	64	56		
PT11	Computer networks	3	Credit	48	42		
PT6	Discrete mathematics	4	Credit	64	56		
PT9	Databases	4	Exam	64	56		
PT12	Fundamentals of web development	4	Exam	64	56		
PT13	Business analysis methods for requirements management	4	Credit	48	72		
PT7	Numerical methods	5	Exam	64	86		
PT14	Distributed computing and cloud services	5	Credit	48	42		
PT15	Software architecture and design	5	Exam	48	72		
PT16	Software quality, testing and support	5	Exam	48	72		
PT15	Software architecture and design	6	Exam	64	56		
PT17	Fundamentals of cybersecurity	6	Exam	48	42		
PT25	Project (practice)	6	Credit	0	180		
PT8	Operations research	6	Exam	64	56		
PT18	Decision making theory	7	Exam	64	56		
PT20	Methods of computational intelligence	8	Exam	30	90		
PT8	Operations research	7	Credit	48	72		
PT21	Intelligent management systems and knowledge bases	8	Credit	50	100		
PT22	Intelligent data analysis	8	Credit	40	80		
PT23	IT project management	8	Exam	40	50		
PT26	Pre-diploma practice	8	Credit	0	180		
	Certification	8	Credit	0	180		
	Unit 2.1 Profile training						33
	2.1.1 Profiled discipline package 01 "Research and Development"			464	526		
OP1.1	Data collection and preparation	3	Credit	64	56		
OP1.2	Probabilistic and statistical models	4	Credit	48	72		
OP1.3	Planning of the experiment	5	Credit	48	72		
OP1.4	Complex systems modeling methods	6	Credit	48	72		
OP1.5	Fuzzy logic and fuzzy systems	7	Credit	32	88		
OP1.6	Fundamentals of Machine Learning	7	Credit	32	88		
OP1.7	Foreign language for scientific research	3-4, 5	Credit, Exam	192	78		
	2.1.2 Profiled discipline package 02 "Software Development and Startup"			464	526		
OP2.1	Fundamentals of entrepreneurship	3	Credit	64	56		
OP2.2	Business modeling	4	Credit	48	72		
OP2.3	Fundamentals of prototyping	5	Credit	48	72		
OP2.4	Startup business planning	6	Credit	48	72		
OP2.5	Internet marketing	7	Credit	32	88		
OP2.6	Startup business analytics	7	Credit	32	88		
OP2.7	Foreign language for business communications	3-4, 5	Credit, Exam	192	78		
	2.1.3 Profiled discipline package 03 "Innovation Campus"			464	526		
OP3.1	Development of corporate information systems (part 1)	3	Credit	64	56		
OP3.2	Development of corporate information systems (part 2)	4	Credit	48	72		
OP3.3	Databases for corporate information systems	5	Credit	48	72		
OP3.4	Architecture of corporate information systems	6	Credit	48	72		
OP3.5	Project workshop	7	Credit	32	88		
OP3.6	IT project teams formation and development	7	Credit	32	88		
OP3.7	Foreign language for the development of corporate information systems	3-4, 5	Credit, Exam	192	78		
ODP	Unit 2.2 Optional student disciplines of the profile preparation according to the list	4-6	Credit	192	258	15	
	Unit 2.3 Optional student disciplines from the general university catalog of disciplines			144	216	12	
OD1	Discipline 1	7	Credit	48	72		
OD2	Discipline 2	7	Credit	48	72		
OD3	Discipline 3	7	Credit	48	72		
	<b>Total</b>			<b>3120</b>	<b>4080</b>	<b>240</b>	