



Engineering

Study program: Automation and computer-integrated technologies

Qualification Level: Master

№	Subject	Semester / Year of study	Credits
1.	Intellectual property rights	1/1	3
2.	Labor protection in Instrument making	2/1	3
3.	Civil defense	1/1	3
4.	Microprocessor systems	1,2/1	7
5.	Computer-integrated technologies	1/1	5
6.	Metrological support of automation of measurements with the course projects	1/1	6
7.	Identification of technological objects	1/1	5
8.	Modeling and optimization of management systems	2/1	4
9.	Automation and computer-integrated technologies in logistics/ Enterprise management	1/1	4
10.	Automation of technological processes/ Automated installation of printed circuit boards	2/1	5
11.	Methods of teaching in high school/ Higher school pedagogy	2/1	3
12.	Fundamentals of scientific research/ Organization of scientific research	2/2	4
13.	Foreign language of professional orientation/ Business foreign language	2/2	4

Qualification Level: Bachelor

№	Subject	Semester / Year of study	Credits
1.	History and culture of Ukraine	1/1	3
2.	Ukrainian language	1,2,3,4/1,2	20
3.	Principles of Ecology/ Industrial ecology	5/3	3
4.	Economics of design/ Business planning	4	8/4



5.	Life safety and Occupational Health/ Protection of human health, life and activity	7/4	3
6.	Higher mathematics	1,2,3,4/1,2	18,5
7.	Computers and communication technologies	1/1	4,5
8.	Materials science and construction materials	1/1	4,5
9.	Physics	2,3/1,2	12
10.	Metrology	2,3/1,2	4,5
11.	Standardization	4/2	5
12.	Electrical engineering	4/2	6
13.	Basics of automatization	1,2/1	6,5
14.	Engineering graphics	1/1	3,5
15.	Technical tools of automatization	3/2	4
16.	Semiconductor devices	3/2	4
17.	Measurement of physical quantities	4/2	5
18.	Theory of automatic control	5/3	7,5
19.	Analog circuitry	5/3	5,5
20.	Digital electronics	6/3	4,5
21.	Analytical methods of automatization	5,6/3	8
22.	Design of system elements	6/3	7
23.	Computer Graphics	6/3	5
24.	Detectors and sensors	6/3	3
25.	IP-programming in automation	8/4	7
26.	Integrated circuit	7/4	5
27.	Microcontrollers	7/4	3
28.	Information display devices/Indicators	4/2	4
29.	Discrete Math/ Algebra of logic	3/2	3
30.	Electric micromachines/ Electric drive automation	5/3	5
31.	Energy saving and energy management/ Resource-saving energy	5,6/3	8,5
32.	Automated Design Systems/ Design automation	7/4	4
33.	Instrument Making Technology/ Technological processes in instrument making	7/4	4
34.	Software of automation systems/ Programming of automated systems	7/4	6
35.	Remote control systems/ Wireless communication systems	7/4	5
36.	Automatization of technological processes/ Industrial microcontrollers	8/4	5
37.	Computer interfaces/ Interface technologies	8/4	5



Study program: Computer systems and networks

Qualification Level: Bachelor

№	Subject	Semester / Year of study	Credits
1.	Ukrainian language	1,2/1,2	20
2.	History and culture of Ukraine	1/1	3
3.	Philosophy	2/1	2
4.	Linear algebra and analytic geometry	1/1	4,5
5.	Mathematical analysis	1,2/1,2	13
6.	Discrete Math	1/1	4
7.	Programming	1,2/1	7,5
8.	Organization and operation of computers	1/1	3
9.	Organization and operation of computers	2/1	3
10.	Data structures and algorithms	2/1	3
11.	Physics	2/1	6
12.	Information theory and coding	2/1	3
13.	Study practice and Programming	2/1	3
14.	English language for Professional purposes	2/2	3
15.	Physics	1/2	6
16.	Computer logic	1,2/2	9
17.	System programming	1,2/2	7
18.	Object-oriented programming	1/2	4
19.	Web-design/ Peripherals	2/2	3
20.	Theory of electric and magnetic circuits	2/2	3
21.	Theory of Probability and mathematical statistics	2/2	3,5
22.	System Software	2/2	3,5
23.	Organization of databases/ Client-server information systems	1,2/2	6
24.	Algorithms and methods of calculations	1/3	4,5
25.	Computer electronics	1/3	3
26.	System software	1/3	4
27.	Computer systems	1/3	4,5
28.	Web-programming	1/3	4
29.	Economics and organization of information business	1/3	3



30.	Application programming technology on C#/Methodology of Programming	1/3	4
31.	Operational systems/Basics of Unix-systems	1/3	3
32.	Theoretical basics of digital signal processing	2/3	3
33.	Architecture of computers	2/3	5
34.	Computer circuitry	2/3	4,5
35.	Information protection in computer systems	2/3	5
36.	Logical and functional programming	2/3	3
37.	Equipment description languages	2/3	5
38.	Design and technological practice	2/3	4,5
39.	Life safety	1/4	3
40.	Computer means of signal processing	1/4	3
41.	Basics of DevOps/ Specialized microprocessor systems	1/4	3
42.	Computer systems design technologies	1,2/4	6
43.	Computer networks	1,2/4	6
44.	Parallel and distributed calculations/ Parallel computing systems	1,2/4	7
45.	Software engineering	1,2/4	6
46.	Technology of applied programming of mobile systems	1,2/4	6
47.	Testing and diagnostics of software and hardware/ programming systems on the chip	2/4	3