



## List of Educational Programs: Industry

Forms of Training: full-time/on-site - distance

№	Set Number	Title of the Educational Program	Main Category	Description	Language of Training:	Target Audience: 1	Training Period	Cost (in USD)
1	2.1.01	Assembly, Diagnostics and Maintenance MPS Festo Stations	Professional courses	As a result of training, you will be able to: read and draw up pneumatic and electrical diagrams; compose UP for Siemens PLC and Siemens HMI touch panels; service, assemble, diagnose automated mechatronic systems with pneumatic, electrical, sensor elements; diagnose and fix malfunctions in mechatronic systems; assemble automated lines in accordance with international requirements; check the correct connection of electrical and pneumatic components using Simubox (optional *); check the Worldskills Test Project in accordance with international rules (optional *)	Russian	Heads of educational organizations, teachers, vocational training instructors, youth and adults	From 1 week	200
2	2.1.02	Mechatronics Fundamentals	Professional courses	As a result of training, you will be able to: read and compose pneumatic and electrical circuits; draw up PLC-based logic control programs and put them into practice; maintain and operate installations with mechatronic systems; diagnose and troubleshoot mechatronic systems	Russian English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists	From 2 weeks	200
3	2.1.03	Festo Meclab Mechatronic Stations Working Principles	Professional courses	As a result of training, you will be able to: read and draw up pneumatic and electrical diagrams; create logic control programs based on Siemens LOGO and put them into practice;	Russian, English (accompanied by an Interpreter)	Organization/ enterprise personnel, students of secondary specialized institutions / higher educational institutions,	From 2 weeks	150

				service, assemble, diagnose automated systems with pneumatic, electrical, sensor elements; diagnose and troubleshoot mechatronic systems		young scientists		
4	2.1.04	Electromechanical Drives Fundamentals	Professional courses	As a result of training you will be able to: describe the functions and design features of modern electric drives; select, configure, parameterize and integrate the optimal electric drives for specific cases of their application; use safety standards and norms, adapt your production equipment.	Russian, English (accompanied by an Interpreter)	Youth and adults, organization/enterprise personnel, students of secondary specialized institutions / higher educational institutions, young scientists	From 1 week	150
5	2.1.05	Industrial Hydroautomatics	Professional courses	As a result of training, you will be able to: design, assemble and test basic hydraulic circuits; maintain, find and eliminate malfunctions in hydraulic systems; identify, describe the device, design features and operation of hydraulic elements; understand the technical characteristics of hydraulic elements and systems; identify the legend of hydraulic elements and read hydraulic diagrams; assess the degree of wear of hydraulic equipment, carry out appropriate diagnostics; it is safe to put the equipment into operation after repair	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, organization/enterprise personnel	From 1 week	150
6	2.1.06	Industrial Pneumatic Automation	Professional courses	As a result of training, you will be able to: read pneumatic diagrams. know the basics of compressed air production; design, assemble and test basic pneumatic automation circuits; service and troubleshoot pneumatic elements and basic control circuits; identify and describe the designs, features and principle of operation of pneumatic elements; explain the technical requirements and characteristics of pneumatic elements.	Russian, English (accompanied by an Interpreter)	Teachers, vocational training instructors, organization/enterprise personnel, students of secondary specialized institutions / higher educational institutions, young scientists	From 1 week	150
7	2.1.07	Industrial Electrical Automation Systems	Professional courses	As a result of training, you will be able to: design, assemble and test basic circuits of electro-pneumatic control systems; navigate the trends in the development of electro-pneumatic systems.	Russian, English (accompanied by an Interpreter)	Teachers, vocational training instructors, organization/enterprise personnel, students of secondary specialized institutions / higher	From 1 week	150

						educational institutions, young scientists		
8	2.1.08	Siemens Controllers Programming	Professional courses	As a result of training, you will be able to: carry out the configuration and commissioning of the PLC; Siemens family; understand the principles of building and executing a program; use the main LAD programming languages; debug programs, find and fix faults.	Russian, English (accompanied by an Interpreter)	Teachers, vocational training instructors, students of secondary specialized institutions / higher educational institutions, young scientists	From 1 week	150
9	2.1.09	LOGO Controllers Programming	Professional courses	As a result of training, you will be able to: program and automate production processes with the LOGO! controller and the LOGOSoftComfort software package.	Russian, English (accompanied by an Interpreter)	Organization/enterprise personnel, students of secondary specialized institutions / higher educational institutions, young scientists, teachers, vocational training instructors	From 1 week	100
10	2.1.10	Modern Production Management Systems MES, Work in MES4 Software	Professional courses	As a result of training, you will be able to: test the performance of components of automated systems and cyber-physical laboratories in manual and automatic mode; create orders, monitor equipment performance in real time, create work plans for manufacturing products in MES4 software; read and write information stored on RFID tags, install, calibrate digital information sensors.	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / Higher Educational Institutions, young scientists, organization/enterprise personnel	From 1 day	120
11	2.1.11	Fundamentals of Programming and Control of Mobile Robots Festo (agv robotino)	Professional courses	As a result of training, you will learn: the mechanism and operating principle of mobile robots festo (robotino); programming stages with mobile robots festo (robotino); be able to write control maps for a mobile robot using the Robotino Factory with the definition of a route, control points of movement.	Russian, English (accompanied by an Interpreter)	Organization/enterprise personnel	From 1 week	130
12	2.1.12	Modern Production Technologies "Industry 4.0"	Professional courses	As a result of training, you will be able to: determine the need for and the possibility of using digital production technologies in their activities; read and write information stored on RFID tags, install, calibrate digital information sensors.	Russian, English (accompanied by an Interpreter)	Youth and adults, organization/enterprise personnel, students of secondary specialized secondary institutions / higher educational institutions, young scientists	From 1 day	150
13	2.1.13	Fundamentals of a Digital Twin Creation,	Professional courses	As a result of training, you will learn: device, the operating principle of a robotic cell;	Russian, English (accompanied by	Youth and adults, organization /enterprise	From 1 week	200

		working in CIROS Software		robot programming commands in CIROS software; stages of creating a digital model in CIROS software; be able to create digital models (twins) in CIROS software.	an Interpreter)	personnel, students of secondary specialized institutions / higher educational institutions, young scientists		
14	2.1.14	Modern Production Technologies "Logistics 4.0"	Professional courses	As a result of training, you will be able to: program an automated warehouse; maintain an automated warehouse; program trajectories, points, displacement map for mobile robots.	Russian, English (accompanied by an Interpreter)	Youth and adults, organization/enterprise personnel, students of secondary specialized institutions / higher educational institutions, young scientists	From 2 weeks	170
15	2.1.15	Sinumerik CNC Systems Programming (Shop Turn)	Professional courses	As a result of training, you will be able to: develop NC programs for CNC machines in the integrated ShopTurn system.	Russian, English (accompanied by an Interpreter)	Youth and adults, organization/enterprise personnel, students of secondary specialized institutions / higher educational institutions, young scientists	From 1 week	160
16	2.1.16	Programming, Setting up and Control of a CNC Turning Machine (Sinumerik 840D)	Professional courses	As a result of training, you will be able to: read and compose control programs for turning and milling for the Sinumerik 840D CNC system; maintain and operate lathes with the Sinumerik 840D CNC system with the C or Y axis; diagnose and eliminate errors in the control program for turning and milling; collect cutting tools; install the cutting tool in the machine; bind the cutting tool by the contact indicator; bind the cutting tool using the groove method; set the zero point of the part; bind an axial cutting tool; create a control program in the memory of the machine; work out and correct the control program.	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, teachers, vocational training instructors, organization/enterprise personnel	From 1 week	250
17	2.1.17	Programming, Setting – up and Control of a CNC Milling Machine (HAAS)	Professional courses	As a result of training, you will be able to: read and write control programs for turning for the HAAS CNC system; maintain and operate lathes with the HAAS CNC system;	Russian, English (accompanied by an Interpreter)	students of secondary specialized institutions / higher educational institutions, young scientists, organization/enterprise	From 2 weeks	

				<p>diagnose and eliminate errors in the control program for turning;  collect cutting tools;  install the cutting tool in the machine;  to bind the cutting tool by the contact indicator;  to bind the cutting tool using the groove method;  set the zero point of the part;  bind an axial cutting tool;  create a control program in the memory of the machine;  work out and correct the control program.</p>		personnel		
18	2.1.18	Programming, Setting-up and Control of a CNC Turning Machine (FANUC)	Professional courses	<p>As a result of training, you will be able to:  read and write control programs for turning for the FANUC CNC system;  maintain and operate lathes with the FANUC CNC system;  diagnose and eliminate errors in the control program for turning;  collect cutting tools;  install the cutting tool in the machine;  to bind the cutting tool by the contact indicator;  to bind the cutting tool using the groove method;  set the zero point of the part;  bind an axial cutting tool;  create a control program in the memory of the machine  work out and correct the control program.</p>	Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel, students of secondary specialized institutions / higher educational institutions, young scientists	From 1 week	250
19	2.1.19	Programming of Sinumerik (ShopMill) CNC Systems	Professional courses	<p>As a result of training, you will be able to:  develop control programs for CNC machines in the integrated ShopMill system.</p>	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, organization /enterprise personnel	From 2 weeks	160
20	2.1.20	Programming, Setting-up and Control of a CNC Turning Machine (Sinumerik 840D)	Professional courses	<p>As a result of training, you will be able to:  collect cutting tools;  install the cutting tool in the machine;  install and base fixtures in a CNC milling machine;  to bind the cutting tool to the frame of reference of the machine;  use of a 3D stylus for binding and an automatic</p>	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, organization /enterprise personnel	From 1 week	160

				<p>measurement system  departure of the tool;  create a control program in the memory of the machine;  work out and correct the control program;  read and compose a control program for three-axis milling for the system  CNC Sinumerik 840D;  maintain and operate CNC milling machines Sinumerik 840D;  diagnose and eliminate errors in the control program for milling</p>				
21	2.1.21	Programming, Setting-up and Control of a CNC Turning Machine (HAAS)	Professional courses	<p>As a result of training, you will be able to:  read and write NC programs for milling for the HAAS CNC system;  maintain and operate milling machines with the HAAS CNC system;  diagnose and eliminate errors in the control program for milling;  collect cutting tools;  install the cutting tool in the machine;  installation and basing of devices in a CNC milling machine;  to bind the tool to the machine reference system;  create a control program in the memory of the machine  work out and correct the control program.</p>	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, organization /enterprise personnel, vocational training instructors	From 2 weeks	230
22	2.1.22	Development of a Control Program for CNC machines in Sprut Cam Systems	Professional courses	<p>As a result of training you will be able to:  develop control programs for CNC machines for 2-3 and 5-axis machining.</p>	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, teachers, vocational training instructors, organization /enterprise personnel	From 2 weeks	170
23	2.1.23	Development of a Control Program for CNC Machines in MasterCam System	Professional courses	<p>As a result of training, you will be able to:  draw up control programs using turning operations, grooving, threading, drilling holes, milling along the C and Y axes, radial drilling (turning and milling);  compose control programs using the operations of contour milling, dynamic milling, thread milling, drilling, facing, pocketing, using</p>	Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, teachers, vocational training instructors, organization /enterprise personnel	From 1 week	170

				operations in the 3D tab (milling); apply various processing technologies, select the necessary cutting tool and optimal cutting conditions; develop 3D models of parts and their processing.				
24	2.2.01	CNC Operator	Retraining		Russian, English (accompanied by an Interpreter)	Students of secondary specialized institutions / higher educational institutions, young scientists, teachers, organization /enterprise personnel, vocational training instructors	From 1 week	500
25	2.2.02	CNC Machines Adjuster	Retraining		Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel	From 1 month	500
26	2.2.03	Turner	Retraining		Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel	From 1 month	450
27	2.2.04	Miller	Retraining		Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel	From 1 month	450
28	2.2.05	Assembly Fitter	Retraining		Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel	From 1 month	450
29	2.2.06	Maintenance Mechanic	Retraining		Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel	From 1 month	450
30	2.2.07	Car Mechanic	Retraining		Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel	From 1 month	450
31	2.3.01	CNC Operator	Advanced training		Russian, English (accompanied by an Interpreter)	Youth and adults, organization /enterprise personnel	From 1 month	250
32	2.3.02	CNC Machines Adjuster	Advanced training		Russian, English (accompanied by an Interpreter)	Organization /enterprise personnel, youth and adults, vocational training instructors	From 1 month	350
33	2.3.03	Turner	Advanced training		Russian, English (accompanied by an Interpreter)	Organization /enterprise personnel, youth and adults, teachers, vocational training instructors	From 1 month	200

34	2.3.04	Miller	Advanced training		Russian, English (accompanied by an Interpreter)	Organization /enterprise personnel, youth and adults, teachers, vocational training instructors	From 1 month	200
35	2.3.05	Assembly Fitter	Advanced training		Russian, English (accompanied by an Interpreter)	Organization /enterprise personnel, youth and adults, teachers, vocational training instructors	From 1 month	200
36	2.3.06	Locksmith	Advanced training		Russian, English (accompanied by an Interpreter)	Organization /enterprise personnel, youth and adults, teachers, vocational training instructors	From 1 month	200
37	2.3.07	Technician-mechanic	Advanced training		Russian	Organization /enterprise personnel, youth and adults teachers, vocational training instructors	From 1 month	200
38	2.3.08	Mechatronics Specialist	Advanced training		Russian	Organization /enterprise personnel, youth and adults teachers, vocational training instructors	From 1 month	300
39	6.5.01	Installation and Maintenance of Electrical Equipment	Secondary specialized education		Russian	Youth and adults	From 1 week	1650
40	6.5.02	Maintenance of Electronic Radio Equipment	Secondary specialized education		Russian	Youth and adults	From 1 year	1650
41	6.5.03	Metal Cutting Machines and Tools	Secondary specialized education		Russian	Youth and adults	From 1 year	1650
42	6.5.04	Industrial Construction and Civil Engineering	Secondary specialized education		Russian	Youth and adults	From 1 year	1650