Bachelor/Master Program: Master Program

Institute: Institute of engineering, material sciences

Study Program: Automation of technological processes and production. Profile 2 – «Automation Information Technology»

№	Subject	Semester	Hours	Credits
M.1.1	**Basic part**			
M.1.1.1	Foreign language for academic purposes	1	108	3
M.1.1.2	Philosophical problems of science and technology	1	72	2
M.1.1.3	Organizational and economic design of innovative processes	2	72	2
M.1.1.4	Mathematical modeling of complex systems	1	108	3
M.1.1.5	Theory of Experiment in Systems Research	1	108	3
M.1.1.6	Storage and protection of computer information	1	144	4
M.1.1.7	Design of automation and control systems	3	108	3
M.1.1.8	Integrated systems for design and management of automated and automatic production	4	108	3
M.1.1.9	Intelligent Computer Information Management Systems	1	108	3
M.1.1.10	Artificial Intelligence and Big Data Processing	2	108	3
M.1.1.11	Designing a single information space for virtual enterprises	3	108	3
M.1.1.12	Machine learning	3	72	2
	Total in the base part		**1224**	**34**
M.1.2	**Variable part**			
M.1.2.1	Foreign language for technical translation	2	108	3
M.1.2.2	Organization of research and development of the results of intellectual activity	2	108	3
M.1.2.3	Optimization Theory and Statistical Dynamics of Automated Systems	/2/3	/216	/6
M.1.2.3	Optimization Theory and Statistical Dynamics of Automated Systems	2	108	3
M.1.2.3	Optimization Theory and Statistical Dynamics of Automated Systems	3	108	3
M.1.2.4	Databases and Knowledge	1	72	2
M.1.2.5	Identification of technological objects and control systems	3	180	5
M.1.2.6	Automation and control systems	4	144	4
M.1.2.7	Modern drives and control technology	3	180	5
M.1.2.8	Technological processes and automation of production	/3/2	/216	/6

M.1.2.8	Technological processes and automation of production	2	108	3
M.1.2.8	Technological processes and automation of production	3	108	3
M.1.2.9	Management Objects	3	72	2
M.1.2.10	Information technology in automation and control	2	108	3
M.1.2.11	Automation of measurement, testing and control processes	4	180	5
M.1.2.12	Technology Entrepreneurship	3	72	2
M.1.3	**Disciplines of choice**			
M.1.3.1.1	CAD systems	1	108	3
M.1.3.1.2	Fundamentals of Computer Aided Design	/1	/108	/3
M.1.3.2.1	Complex Time Series Analysis	2	108	3
M.1.3.2.2	Digital signal processing	/2	/108	/3
M.1.3.3.1	Modern problems of control and automation	1	180	5
M.1.3.3.2	Modern means and methods of control and automation	/1	/180	/5
M.1.3.3.3	Military training	/1	/180	/5
M.1.3.4.1	CALS - Technology	2	216	6
M.1.3.4.2	Process Design Methodology	/2	/216	/6
M.1.3.5.1	Modern CNC systems	4	180	5
M.1.3.5.2	Process equipment control systems	/4	/180	/5
	Total for the variable part		**2448**	**68**
M.2	**Practices (optional part)**			
M.2.1	Production *	2	108	3
M.2.2	Production (pedagogical) *	4	108	3
M.2.3	Research work	4	108	3
M.2.4	Undergraduate	4	108	3
M.3	**State final certification (basic part)**		216	6
	Total in direction		**4320**	**120**
Ф.	**Optional disciplines**			
Ф.1	Military training	2	243	
Ф.2	Project management	2	72	8
Ф.3	Fundamentals of Robotics and Mechatronics	3	72	8