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Информация о владельце:

ФИО: Ястребов Олег Александровии State Autonomous Educational Institution of Higher Education Должность: Ректор

Дата подписания: 28.06.2024 10:48:11 PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA

Уникальный программный ключ:

NAMED AFTER PATRICE LUMUMBA

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RUDN University

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educational division (faculty/institute/academy) as higher education programme developer

Approved at the meeting of the Academic Opened by order of the Rector of

Council of RUDN University RUDN University

Protocol No. 17 No. 582

October 23, 2023 November 20, 2023 (date, month, year)

PROFESSIONAL EDUCATION PROGRAMME OF HIGHER EDUCATION

Field of Studies/ Speciality:

27.04.05 Innovatics

(field of studies / speciality code and title)

Profile/Specialisation:

Digital Transformation in Production Management

(higher education programme title)

The Educational Programme is developed in compliance with:

Educational Standard of RUDN University, approved by Order of the Rector No. 371 dated May 21, 2021

Level of education:		
	master's	
	(bachelor's / specialist's / master's – to fill in the required)	

Graduate's Qualification:

2 years

Master

(graduate's qualification in compliance with the order of the Ministry of Education and Science of Russian Federation dated September 12, 2013, No. 1061)

Length of Educational Programme:

J =		
(full-time education)	(part-time education)	(correspondence education)
	AGREED by:	
Head	Chairperson	Head
of Educational Programme	of Didactic Council	of Educational
		Department
E.A. Kovaleva	Yu.N. Razoumny	Yu.N. Razoumny
(signature)	(signature)	(signature)
(day, month, year)	(day, month, year)	(day, month, year)

1. GOAL (MISSION) OF EP HE

The program is focused on training highly qualified specialists in the field of creating and managing innovations at various stages of the life cycle. In the process of training, students receive theoretical training and practical skills that allow them to work effectively after completing the study of the educational program, dealing with innovation management in the design, research, production and operation of systems and controls in the industrial and defense industries, in the economy, in transport, in agriculture, medicine, etc.

The program is designed in such a way that it allows students to form the most popular universal, general professional and professional competencies today, the development of skills for their implementation in professional activities in accordance with the requirements of the Educational Standards of Higher Education. In the process of training, students receive fundamental theoretical and applied knowledge that allows them to carry out activities in the field of creating and managing innovations at various stages of the life cycle.

2. RELEVANCE, SPECIFICITY, UNIQUINESS OF THE EDUCATIONAL PROGRAM

Innovation today is a key competitive advantage of organizations aimed at continuous development and sustainable growth. This is due to the accelerating pace of change that is taking place in the global economy. Qualified managers who are able to implement promising ideas in a timely and high-quality manner are in high demand. This, in turn, requires a special approach to the training of managers, based on the synthesis of sound theoretical positions and practical conclusions.

The program is aimed at training masters in the field of innovation management, it combines both the study of traditional academic disciplines and the creative activity of undergraduates in the framework of prestigious international competitions. The uniqueness of the program lies in the fact that it optimally combines technical, managerial and economic disciplines, as a result, graduates of the program will be prepared to develop innovative development programs at various levels, manage high-tech industries, solve managerial and economic problems at all stages of business management, and create an innovative business

3. ПОТРЕБНОСТИ РЫНКА ТРУДА В ПОДГОТОВКЕ КАДРОВ ПО ПРОФИЛЮ ОП ВО

In recent years, the share of industrial organizations implementing innovations has tripled and is more than 20% at the beginning of 2020. The innovative activity of industrial production organizations increased by 1.5 times (from 10% in 2016 to 15% at the beginning of 2020). In the field of information technology, software development and telecommunications, the trends are similar: the share of organizations engaged in technological innovation has doubled to about 15%. Statistics confirm the need of the labor market for specialists in the field of innovation management.

The program is distinguished by its focus on the economics of high-tech industries, and will make it possible to train professionals capable of creating innovations, economically justifying complex high-tech production projects, developing programs for the development of high-tech industry and calculating their effectiveness.

4. SPECIAL REQUIREMENTS FOR POTENTIAL APPLICANTS

Admission to the program is subject to the Admission Rules approved by the relevant local regulatory act and publicly available on the official website RUDN http://www.rudn.ru/admissions.

5. FEATURES OF EDUCATIONAL PROGRAMME IMPLEMENTATION

- 5.1. EP HE is implemented with elements of e-learning / distance learning technologies (Microsoft Teams, Zoom, TUIS RUDN).
 - 5.2. The language of implementation of the EP HE is English.
- 5.3. If necessary, the educational program can be adapted to teach disabled people and people with limited abilities. Elements of e-learning and remote learning technologies used in the education of disabled people and people with limited abilities provide for the possibility of receiving and transmitting information in forms suitable to them.
 - 5.4. The EP of HE is implemented by the Peoples' Friendship University of Russia named

after Patrice Lumumba.

5.5. Information on the planned bases for conducting educational/industrial practices and (or) research

Potential partners: JSC Polyus Research Institute named after M.F. Stelmakh, JSC Shvabe, FSUE Research Institute Research and Production Association LUCH, UNIDO Center for International Industrial Cooperation in the Russian Federation, etc.

6. CHARACTERISTICS OF EDUCATIONAL PROGRAMME GRADUATE'S PROFESSIONAL ACTIVITIES

- 6.1. Field(s) and/or sphere(s) of professional activity of a graduate who has mastered the EP of HE in which he (s) can carry out his/her professional activities:
- 01 Education and science (in the areas of: implementation of basic professional educational programs and additional educational programs; scientific research).
- 6.2. Type(s) of tasks of professional activity, for the solution of which the graduate is preparing as part of the development of the EP HE pedagogical.

6.3. The list of generalized labor functions and labor functions related to the professional activity of a graduate of the EP HE, in accordance with which the program was developed

Code and title		Generalized labor funct	ions		Labor functions	
of the professional standard	Code	Title	Qualifi- cation level	Code	Name	Qualifi- cation level
	В	Strategic management		D/01 7	Stratagia management of pro	7
1				D /U1./	Strategic management of pro-	/
cialist in stra-		of the processes of			duction resource and capacity	
tegic and tac-		planning and organiza-			planning processes	
tical planning		tion of production at		B/02.7		7
and organiza-		the level of an indus-			processes of organizational and	
tion of pro-		trial organization			technological modernization of	
duction					production	
	C	Strategic management	7	C/01.7	Organization of research and de-	7
		of projects and pro-			velopment of promising meth-	
		grams for the introduc-			ods, models and mechanisms for	
		tion of new methods			the organization and planning of	
		and models of organi-			production	
		zation and planning of		C/02.7	Management of projects for	7
		production at the level			reengineering business pro-	
		of an industrial organi-			cesses of an industrial organiza-	
		zation			tion using modern information	
					technologies	

7. REQUIREMENTS FOR EDUCATIONAL PROGRAMME OUTCOMES

7.1 Upon completion of the Educational Programme, the graduate is expected to acquire the following generic competences (GCs):

Code and descriptor of generic competence	Code and competence level indicator
GC-1 Able to carry out a critical analysis of	GC-1.1. Analyzes the problem situation and decomposes
problem situations on the basis of a systematic	it into separate tasks.
approach, to develop an action strategy	GC-1.2. Forms possible solutions to problems
GC-2 Able to manage the project at all stages	GC-2.1. Demonstrates knowledge of the characteristics of
of its life cycle	all stages of the project life cycle
	GC -2.2. Participates in project management at all stages
	of the life cycle
GC-3 Able to organize and lead the work of the	GC-3.1. Demonstrates knowledge of the principles of
team, developing a team strategy to achieve the	teamwork.
goal	GC-3.2. Supervises team members to solve assigned tasks
GC-4 Able to apply modern communication	GC-4.1. Carries out academic and professional interaction,
technologies, including in a foreign lan-	including in a foreign language.
guage(s), for academic and professional inter-	GC-4.2. Uses modern information and communication
action	tools for academic and professional interaction

GC-5 Able to analyze and take into account the	GC-5.1. Demonstrates an understanding of different cul-
diversity of cultures in the process of intercul-	tures
tural interaction	GC-5.2. Builds social interaction, taking into account the
	common and different features of cultures and religions
GC-6 Able to determine and implement the pri-	GC-6.1. Assesses their resources and their limits (personal,
orities of their own activities and ways to im-	situational, temporary), optimally uses them for the sGC-
prove them on the basis of self-esteem	cessful completion of the assigned task.
	GC-6.2. Determines the priorities of personal growth and
	ways to improve their own activities based on self-esteem
UC-7. Able to search for the necessary sources	UC-7.1 Effectively finds sources of necessary information.
of information and data, perceive, analyze,	UC-7.2 Owns methods of analysis and evaluation of infor-
memorize and transmit information using digi-	mation
tal means, as well as using algorithms when	
working with data obtained from various	
sources in order to effectively use the infor-	
mation received to solve problems; evaluate in-	
formation, its reliability, build logical conclu-	
sions based on incoming information and data.	

7.2. Upon completion of the development of the EP HE, the graduate must have the following general professional competencies (GPC):

Code and descriptor of the competence	Code and competence level indicator
GPC-1 Able to analyze and identify the natural	GPC-1.1. Analyzes management tasks in technical sys-
science essence of control problems in tech-	tems, highlighting the basic components, performs task de-
nical systems on the basis of provisions, laws	composition
and methods in the field of mathematics, natu-	OPK -1.2. Competently, logically, reasonably forms their
ral and technical sciences	own judgments and assessments
GPC-2 Able to formulate management prob-	GPC-2.1. Selects the best methods for solving control
lems in technical systems and justify methods	problems in technical systems
for solving them	GPC-2.2. Competently formulates management tasks in
	technical systems
GPC-3 Able to independently solve control	GPC-3.1. Independently finds sources of information for
problems in technical systems based on the lat-	solving management problems in technical systems
est achievements of science and technology	GPC-3.2. Demonstrates the basic principles of solving
	control problems in technical systems
GPC-4 Able to develop criteria for evaluating	GPC-4.1. Formulates criteria for assessing the effective-
management systems in the field of innovation	ness of innovation management
based on modern mathematical methods, to de-	GPC-4.2. Demonstrates knowledge of mathematical meth-
velop and implement management decisions to	ods necessary for making management decisions
improve their efficiency	
	GPC-5.1. Solves problems related to the use of intellectual
	activity to create innovative products and services
	GPC-5.2. Demonstrates knowledge of forms, methods of
1	legal protection and protection of rights to the result of in-
solve problems in the field of development of	tellectual activity;
science, technology and technology	
	GPC-6.1. Independently finds reliable sources of scientific
and technical information, summarize domes-	
	GPC-6.2. Demonstrates knowledge of methods of summa-
vation management and building innovation	rizing information in the field of innovation management
ecosystems	
	GPC-7.1. Demonstrates knowledge of technological and
	software solutions for managing innovation processes
	GPC-7.2. Demonstrates knowledge of the features of in-
cesses and projects, implement them in prac-	, , ,
tice in relation to the innovation systems of the	
enterprise, industry and regional innovation	

systems	
GPC-8 Able to perform experiments at existing	OPK-8.1. Performs the experiment according to the speci-
facilities according to specified methods and	fied methods
process the results using modern information	OPK-8.2. Demonstrates knowledge of modern infor-
technologies and technical	mation technologies necessary to summarize the results of
	the experiment
GPC-9 Able to solve professional problems	GPC-9.1. Demonstrates knowledge of the history and phi-
based on the history and philosophy of innova-	losophy of innovations and uses them to solve problems
tions, mathematical methods and models for	GPC-9.2 Demonstrates knowledge of technological struc-
innovation management, knowledge of the fea-	tures and uses them to solve problems
tures of the emerging technological structures	-
and the fourth industrial revolution in the inno-	
vation sphere	
GPC-10 Able to develop, combine and adapt	GPC-10.1 Develops algorithms and software applications
algorithms and software applications suitable	necessary to solve the problem of digitalization
for solving practical problems of digitalization	GPC-10.2. Shows knowledge of key digitalization trends
in the field of professional activity	
GPC-11 Able to develop, combine and adapt	GPC-11.1. Develops algorithms and software applications
algorithms and software applications suitable	
for solving practical problems of digitalization	GPC-11.2. Shows knowledge of methods of combining al-
in the field of professional activity	gorithms
7.2 Upon completion of the Educat	ional Programme the graduate is expected to acquire

7.3. Upon completion of the Educational Programme, the graduate is expected to acquire the following professional competences (PCs):

Code and descriptor of professional competence	Code and competence level indicator	Code and ti- tle of occu- pational standard for relevant PC
PC-1 The ability to organize the work of the		•
creative team to achieve the scientific goal,	the key principles of managing a crea-	cialist in
to find and make management decisions, to	tive team	strategic and
evaluate the quality and effectiveness of la-	PC-1.2. Uses tools for assessing the	tactical plan-
bor, costs and results of the research and pro-	quality and effectiveness of work	ning and or-
duction team		ganization of
PC-2 The ability to find (choose) the best	PC-2.1. Demonstrates knowledge of	production
solutions when creating new high-tech	assessing the quality, cost and compet-	
products, taking into account the require-	itiveness of an innovative product or	
ments of quality, cost, deadlines, competi-	service	
tiveness and environmental safety	PC-2.2. Uses methods for assessing	
	environmental safety	
PC-3 Ability to develop a plan and program	PC-3.1. Uses methods of technical and	
for the organization of innovative activities	economic design of innovative indus-	
of the research and production unit, to carry	tries	
out a feasibility study of innovative projects	PC-3.2 Develops a plan and program	
and programs	for the organization of innovative ac-	
	tivities	

8. MATRIX OF COMPETENCES that students acquire when mastering the Educational Programme «Digital Transformation in Production Management» in the field of studies 27.04.05 Innovatics

			GE	ENERI	IC CO	MPETI	ENCES	
Code	Titles of subjects and internship, forming competences	GC-1: Able to carry out a critical analysis of problem situations on the basis of a systematic approach, to develop an action strategy	GC-2: Able to manage the project at all stages of its life cycle	GC-3: Able to organizeand manage thework of the team, developing a team strategy to achieve the goals	GC-4: Able to apply modern communication technologies, including in a foreign language(s), for academic and professional interaction	GC-5: Способен анализировать и учитывать разнообразие культур в процессе межкультурного взаимодействия	GC-6 is able to determine and implement the priorities of its own activities and ways to improve it on the basis of self-assessment	GC-7. Able to: search for the necessary sources of information and data, perceive, analyze, memorize and transmit information using digital means, as well as with data obtained from various sources in order to effectively use the information received to solve problems
Б1	DISCIPLINES (MODULES)							
Б1.О	Mandatory part	1	GC 2.1	I	 	GC 5.1		GC-7.1, GC-
Б1.О.01	Core component	GC-1.1	GC-2.1, GC-2.2		GC-4.1	GC-5.1, GC-5.2		7.2
	Professional Russian (as a Foreign Language) / Русский язык (как иностранный) в профессиональной деятельности				GC-4.1	GC-5.1, GC-5.2		
Б1.О.01.02	Methodology of Scientific Research / Методология научного исследования	GC-1.1						
Б1.О.01.03	Design of automated control systems / Проектирование автоматизированных систем управления		GC-2.1, GC-2.2					GC-7.1, GC- 7.2
Б1.О.02	Variable component	GC-1.2		GC-3.1, GC-3.2	GC-4.2		GC-6.1, GC-6.2	GC-7.1, GC- 7.2
Б1.О.02.01	Big data mining / Обработка больших данных							

Б1.О.02.02	Information Technology in Mathematical Modelling / Информационные технологии в математи-	GC-1.2					
B1.0.02.02	ческом моделировании	GC 1.2					
Б1.О.02.03	Numerical methods for solving mathematical modeling problems / Численные методы решения за-	GC-1.2				C-6.1,	
B1.0.02.03	дач математического моделирования	GC 1.2			G	C-6.2	
Б1.О.02.04	Management of business operations of hi-tech industries / Управление операционной деятельно-						
D1.O.02.04	стью наукоемких производств						
Б1.О.02.05	Strategic Development of an Innovative Enterprise / Стратегическое развитие инновационного						
D1.O.02.03	предприятия						
Б1.О.02.06	Innovation technologies of personnel managemet / Инновационные технологии управления пер-		GC-3.1	GC-4.2			
D1.O.02.00	соналом		GC-3.2	GC-4.2			
Б1.О.02.07	Digital technologies of innovative production / Цифровые технологии инновационного производ-			GC-4.2			
D1.0.02.07	ства			GC 4.2			
Б1.О.02.08	Geoinformation Systems and Applications / Геоинформационные системы и их применение	GC-1.2					GC-7.1, GC- 7.2
Б1.О.02.09	Strategic controlling at innovative enterprise / Стратегический контроллинг на инновационном						
Б1.О.02.09	предприятии						
Б1.О.02.10	Economy of hi-tech production branches / Экономика высокотехнологичных отраслей промыш-						
Б1.О.02.10	ленности						
Б1.О.02.11	Marketing of innovative products / Маркетинг инновационных продуктов						
Б1.О.02.12	Management of supply chains at innovative enterprise / Управление цепями поставок на иннова-						
B1.O.02.12	ционном предприятии						
Б1.О.02.13	Run-time controlling at innovative enterprise / Оперативный контроллинг на инновационном						
B1.O.02.13	предприятии						
Б1.В	The part formed by the participants of educational relations						
Б1.В.ДВ.01.01	Ecological management at innovative enterprise / Экологический менеджмент на инновационных						
Б1.Б.ДБ.01.01	предприятиях						
Б1.В.ДВ.01.02	Innovative technologies of ecological mamagement in industries / Инновационные технологии						
Б1.Б.ДБ.01.02	природопользования в отраслях промышленности						
Б1.В.ДВ.02.01	Assessment of innovative-investment projects effictiveness / Оценка эффективности инноваци-		GC-3.2				
	онно-инвестиционных проектов		GC-3.2				
Б1.В.ДВ.02.02	International sci-tech cooperation / Международное научно-техническое сотрудничество		GC-3.2				
Block 2	TRAINING						
Б2.О	Mandatory part						
Б2.О.01	Variable component						
	Introductory training / Ознакомительная практика						
Б2.О.01.02(У)	Organisation and managerial practice (educational) / Организационно-управленческая практика						
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	(учебная)							
Б2.О.01.03(П)	Organisation and managerial practice / Организационно-управленческая практика							
Б2.В	The part formed by the participants of educational relations							
Б2.В.01(Пд)	Pre-graduate practice / Преддипломная практика							
Block 3	FINAL STATE ASSESSMENT							
Б3.01(Г)	State exam / Государственный экзамен	All GC	All GC	All GC	All GC	All GC	All GC	All GC
Б3.02(Д)	Final qualification work / Выпускная квалификационная работа	All GC	All GC	All GC	All GC	All GC	All GC	All GC

	GENERAL PROFESSIONAL COMPETENCIES											
Code	Titles of subjects and internship, forming competences	GPC-1 Able to analyze and identify the natural science essence of conrol problems in technical systems on the basis of provisions, laws and methods in the field of mathematics, natural and technical sciences		GPC-3 Able to independently solve control problems in technical systems based on the latest achievements of science and technology	GPC-4 Able to develop criteria for evaluating management systems in the field of innovation based on modern mathematical methods, to develop and implement management decisions to improve their efficiency		ical information, I of innovation	GPC-7 Able to reasonably select and justify structural, algorithmic, technological and software solutions for managing innovation processes and projects, implement them in practice in relation to the innovation systems of the enterprise, industry and regional innovation systems	GPC-8 Able to perform experiments at existing facilities according to specified methods and process the results using modern information technologies and technical	GPC-9 Able to solve professional problems based on the history and philosophy of innovations, mathematical methods and models for innovation management, knowledge of the features of the emerging technological structures and the fourth industrial revolution in the innovation sphere	GPC-10 Able to develop, combine and adapt algorithms and software applications suitable for solving practical problems of digitalization in the field of professional activity	GPC-11 Able to develop, combine and adapt algorithms and software applications suitable for solving practical problems of digitalization in the field of professional activity
Б1	DISCIPLINES (MODULES)											
Б1.О	Mandatory part											
Б1.О.01	Core component	GPC-1.1, GPC-1.2	GPC-2.1, GPC-2.2	GPC-3.1	GPC-4.1, GPC-4.2	GPC-5.2	GPC-6.1, GPC-6.2	GPC-7.1, GPC-7.2	GPC-8.1, GPC-8.2	GPC-9.1, GPC- 9.2	ОПК-10.1, ОПК-10.2	ОПК-11.1, ОПК-11.2
	Professional Russian (as a Foreign Language) / Русский язык (как иностранный) в профессиональной деятельности											ОПК-11.1, ОПК-11.2
Ы1.О.01.02	Methodology of Scientific Research / Методология научного исследования	GPC-1.1, GPC-1.2	GPC-2.1, GPC-2.2	GPC-3.1		GPC-5.2						
Б1.О.01.03	Design of automated control systems / Проектирование автоматизированных систем управления				GPC-4.1, GPC-4.2		GPC-6.1, GPC-6.2	GPC-7.1, GPC-7.2	GPC-8.1, GPC-8.2		ОПК-10.1, ОПК-10.2	
Б1.О.02	Variable component		GPC-2.1, GPC-2.2	GPC-3.1, GPC-3.2	GPC-4.1, GPC-4.2	GPC-5.1, GPC-5.2	GPC-6.1, GPC-6.2	GPC-7.1, GPC-7.2	GPC-8.2	GPC-9.1, GPC- 9.2		
Б1.О.02.01	Big data mining / Обработка больших данных				GPC-4.2				GPC-8.2			
	Information Technology in Mathematical Modelling /				GPC-4.2							

	Информационные технологии в математическом моделировании									
	Numerical methods for solving mathematical									
Б1.О.02.03	modeling problems / Численные методы решения				GPC-4.2					
	задач математического моделирования									
	Management of business operations of hi-tech									
Б1.О.02.04	industries / Управление операционной деятельно-				GPC-4.1			GPC-7.1		
	стью наукоемких производств									
	Strategic Development of an Innovative Enterprise /									
Б1.О.02.05	Стратегическое развитие инновационного пред-					GPC-5.1, GPC-5.2		GPC-7.1		
	приятия				01 0 3.2					
	Innovation technologies of personnel managemet /									
Б1.О.02.06	Инновационные технологии управления персона-			GPC-3.1			GPC-6.1, GPC-6.2			
	лом						01 0 0.2			
Б1.О.02.07	Digital technologies of innovative production / Циф-							GPC-7.1		
B1.O.02.07	ровые технологии инновационного производства							GFC-7.1		
Б1.О.02.08	Geoinformation Systems and Applications / Геоин-							GPC-7.1,		
B1.O.02.08	формационные системы и их применение							GPC-7.2		
	Strategic controlling at innovative enterprise / CTpaTe-								and of and	
Б1.О.02.09	гический контроллинг на инновационном пред-								GPC-9.1, GPC- 9.2	
	приятии									
Б1.О.02.10	Economy of hi-tech production branches / Экономика		CDC	GPC-3.2						
D1.O.02.10	высокотехнологичных отраслей промышленности			GPC-3.2						
Б1.О.02.11	Marketing of innovative products / Маркетинг инно-		GPC-2.1,							
В1.О.02.11	вационных продуктов		GPC-2.2							
	Management of supply chains at innovative enterprise		ana a i							
Б1.О.02.12	/ Управление цепями поставок на инновационном		GPC-2.1, GPC-2.2							
	предприятии									
	Run-time controlling at innovative enterprise / Опера-		ana a i							
Б1.О.02.13	тивный контроллинг на инновационном предприя-		GPC-2.1, GPC-2.2							
	тии									
Б1.В	The part formed by the participants of educational i	elation	ns						_	
	Ecological management at innovative enterprise /									
Б1.В.ДВ.01.01	Экологический менеджмент на инновационных									
	предприятиях									
Б1.В.ДВ.01.02	Innovative technologies of ecological mamagement in									

	industries / Инновационные технологии природо-											
	пользования в отраслях промышленности											
	Assessment of innovative-investment projects effic-											
Б1.В.ДВ.02.01	tiveness / Оценка эффективности инновационно-											
	инвестиционных проектов											
Б1.В.ДВ.02.02	International sci-tech cooperation / Международное											
Б1.Б.ДБ.02.02	научно-техническое сотрудничество											
Block 2	TRAINING											
Б2.О	Mandatory part											
Б2.О.01	Variable component		GPC-2.1, GPC-2.2		GPC-4.1, GPC-4.2	GPC-5.1	GPC-6.1		GPC-7.1			
Б2.О.01.01(У)	Introductory training / Ознакомительная практика					GPC-5.1	GPC-6.1					
	Organisation and managerial practice (educational) /											
Б2.О.01.02(У)	Организационно-управленческая практика		GPC-2.1, GPC-2.2		GPC-4.1, GPC-4.2							
	(учебная)				000							
Б2.О.01.03(П)	Organisation and managerial practice / Организаци-								GPC-7.1			
B2.O.01.03(11)	онно-управленческая практика								GFC-7.1			
Б2.В	The part formed by the participants of educational	relatio	ns									
Б2.В.01(Пд)	Pre-graduate practice / Преддипломная практика											
Block 3	FINAL STATE ASSESSMENT											
Б3.01(Г)	State exam / Государственный экзамен	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC
Б3.02(Д)	Final qualification work / Выпускная квалификаци-	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC	All GPC
вз.02(Д)	онная работа	All OFC	All OFC	All OFC	All OFC	All UFC	All OFC					

		PROFESSIONAL COMPETENCIES						
Code	Titles of subjects and internship, forming competences	PC-1 The ability to organize the work of the creative team to achieve the scientific goal, to find and make management decisions, to evaluate the quality and effectiveness of labor, costs and results of the research and production team	PC-2 The ability to find (choose) the best solutions when creating new high-tech products, taking into account the requirements of quality, cost, deadlines, competitiveness and environmental safety	PC-3 Ability to develop a plan and program for the organization of innovative activities of the research and production unit, to carry out a feasibility study of innovative projects and programs				
Б1	DISCIPLINES (MODULES)			7 3 5 3 5 1				
Б1.О	Mandatory part							
Б1.О.01	Core component							
Б1.О.01.01	Professional Russian (as a Foreign Language) / Русский язык (как иностранный) в							
Ы.О.01.01	профессиональной деятельности							
Б1.О.01.02	Methodology of Scientific Research / Методология научного исследования							
Б1.О.01.03	Design of automated control systems / Проектирование автоматизированных си-							
	стем управления							
Б1.О.02	Variable component	PC-1.1, PC-1.2	PC-2.1, PC-2.2	PC-3.1, PC-3.2				
Б1.О.02.01	Big data mining / Обработка больших данных			PC-3.2				
Б1.О.02.02	Information Technology in Mathematical Modelling / Информационные техноло-							
B1.0.02.02	гии в математическом моделировании							
Б1.О.02.03	Numerical methods for solving mathematical modeling problems / Численные ме-							
	тоды решения задач математического моделирования							
Б1.О.02.04	Management of business operations of hi-tech industries / Управление операцион-		PC-2.1	PC-3.2				
	ной деятельностью наукоемких производств							
Б1.О.02.05	Strategic Development of an Innovative Enterprise / Стратегическое развитие ин-			PC-3.2				
	новационного предприятия							
Б1.О.02.06	Innovation technologies of personnel managemet / Инновационные технологии	PC-1.1, PC-1.2						
	управления персоналом							
Б1.О.02.07	Digital technologies of innovative production / Цифровые технологии инноваци-			PC-3.2				
	онного производства							
Б1.О.02.08	Geoinformation Systems and Applications / Геоинформационные системы и их		PC-2.2					
	применение							

Б1.О.02.09	Strategic controlling at innovative enterprise / Стратегический контроллинг на инновационном предприятии		PC-2.1	PC-3.2			
Б1.О.02.10	Economy of hi-tech production branches / Экономика высокотехнологичных от-		PC-2.1				
	раслей промышленности						
Б1.О.02.11	Marketing of innovative products / Маркетинг инновационных продуктов		PC-2.1				
Б1.О.02.12	Management of supply chains at innovative enterprise / Управление цепями по-	PC-2.1					
	ставок на инновационном предприятии						
Б1.О.02.13	Run-time controlling at innovative enterprise / Оперативный контроллинг на ин-			PC-3.1			
	новационном предприятии						
Б1.В	The part formed by the participants of educational relations		1				
Б1.В.ДВ.01.01	Ecological management at innovative enterprise / Экологический менеджмент на	PC-2.2					
Б1.Б.ДБ.01.01	инновационных предприятиях		1 0 2.2				
Б1.В.ДВ.01.02	Innovative technologies of ecological mamagement in industries / Инновационные		PC-2.2				
Б1.Б.ДБ.01.02	технологии природопользования в отраслях промышленности	пользования в отраслях промышленности					
Б1.В.ДВ.02.01	Assessment of innovative-investment projects effictiveness / Оценка эффективно-		PC-2.1				
ы.ь.дь.02.01	сти инновационно-инвестиционных проектов		FC-2.1				
Б1.В.ДВ.02.02	International sci-tech cooperation / Международное научно-техническое сотруд-	onal sci-tech cooperation / Международное научно-техническое сотруд-					
Б1.Б.ДБ.02.02	ничество		PC-2.1				
Block 2	TRAINING						
Б2.О	Mandatory part						
Б2.О.01	Variable component	All PC	All PC	All PC			
Б2.О.01.01(У)	Introductory training / Ознакомительная практика	All PC	All PC	All PC			
Б2.О.01.02(У)	Organisation and managerial practice (educational) / Организационно-управленче-	All DC	All DC	A II DC			
b2.O.01.02(У)	ская практика (учебная)	All PC	All PC	All PC			
Б2.О.01.03(П)	Organisation and managerial practice / Организационно-управленческая прак-	All PC	A II DC	All DC			
b2.O.01.03(11)	тика	All PC	All PC				
Б2.В	The part formed by the participants of educational relations						
Б2.В.01(Пд)	Pre-graduate practice / Преддипломная практика	All PC	All PC	All PC			
Block 3	FINAL STATE ASSESSMENT						
Б3.01(Г)	State exam / Государственный экзамен	All PC	All PC	All PC			
Б3.02(Д)	Final qualification work / Выпускная квалификационная работа	All PC	All PC	All PC			