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Информация о владельце:  
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Должность: Ректор  
Дата подписания: 22.05.2025 11:49:42  
Уникальный программный ключ:  
ca953a0120d891083f939673078ef1a989dae18a

**Federal State Autonomous Educational Institution of Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA  
NAMED AFTER PATRICE LUMUMBA  
RUDN University**

**Academy of Engineering**

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

Approved at the meeting of the Academic  
Council of RUDN University

Protocol No. 17

October 23, 2023

(date, month, year)

Opened by order of the Rector of  
RUDN University

No. 582

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:

**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:

**2 years**

(full-time education)

(part-time education)

(correspondence education)

AGREED by:

Head  
of Educational Programme

E.A. Kovaleva

(signature)

(day, month, year)

Chairperson  
of Didactic Council

Yu.N. Razoumny

(signature)

(day, month, year)

Head  
of Educational  
Department  
Yu.N. Razoumny

(signature)

(day, month, year)

2025

## **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, UNIQUENESS 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. NEEDS OF THE LABOR MARKET IN TRAINING PERSONNEL ACCORDING TO THE PROFILE OF THE EDUCATIONAL PROGRAM**

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:

40 Cross-cutting professional activities (in the field of innovative project management).

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 – organizational and management.

## **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):

| <b>Code and descriptor of generic competence</b>  | <b>Code and competence level indicator</b>  |
|---|---|
| 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-1.1. Analyzes the problem situation and decomposes it into separate tasks.<br>GC-1.2. Forms possible solutions to problems   |
| GC-2 Able to manage the project at all stages of its life cycle   | GC-2.1. Demonstrates knowledge of the characteristics of all stages of the project life cycle<br>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 team, developing a team strategy to achieve the goal   | GC-3.1. Demonstrates knowledge of the principles of teamwork.<br>GC-3.2. Supervises team members to solve assigned tasks  |
| GC-4 Able to apply modern communication technologies, including in a foreign language(s), for academic and professional interaction   | GC-4.1. Carries out academic and professional interaction, including in a foreign language.<br>GC-4.2. Uses modern information and communication tools for academic and professional interaction  |
| GC-5 Able to analyze and take into account the diversity of cultures in the process of intercultural interaction  | GC-5.1. Demonstrates an understanding of different cultures<br>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 priorities of their own activities and ways to improve them on the basis of self-esteem  | GC-6.1. Assesses their resources and their limits (personal, situational, temporary), optimally uses them for the successful completion of the assigned task.<br>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 of information and data, perceive, analyze, memorize and transmit information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the infor- | UC-7.1 Effectively finds sources of necessary information.<br>UC-7.2 Owns methods of analysis and evaluation of information   |

mation received to solve problems; evaluate information, its reliability, build logical conclusions 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 science essence of control problems in technical systems on the basis of provisions, laws and methods in the field of mathematics, natural and technical sciences  | GPC-1.1. Analyzes management tasks in technical systems, highlighting the basic components, performs task decomposition<br>OPK -1.2. Competently, logically, reasonably forms their own judgments and assessments   |
| GPC-2 Able to formulate management problems in technical systems and justify methods for solving them   | GPC-2.1. Selects the best methods for solving control problems in technical systems<br>GPC-2.2. Competently formulates management tasks in technical systems  |
| GPC-3 Able to independently solve control problems in technical systems based on the latest achievements of science and technology  | GPC-3.1. Independently finds sources of information for solving management problems in technical systems<br>GPC-3.2. Demonstrates the basic principles of solving control problems in technical systems   |
| 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   | GPC-4.1. Formulates criteria for assessing the effectiveness of innovation management<br>GPC-4.2. Demonstrates knowledge of mathematical methods necessary for making management decisions  |
| GPC-5 Able to conduct patent research, determine the forms and methods of legal protection and protection of rights to the result of intellectual activity, dispose of the rights to them to solve problems in the field of development of science, technology and technology             | GPC-5.1. Solves problems related to the use of intellectual activity to create innovative products and services<br>GPC-5.2. Demonstrates knowledge of forms, methods of legal protection and protection of rights to the result of intellectual activity; |
| GPC-6 Able to collect and analyze scientific and technical information, summarize domestic and foreign experience in the field of innovation management and building innovation ecosystems  | GPC-6.1. Independently finds reliable sources of scientific and technical information<br>GPC-6.2. Demonstrates knowledge of methods of summarizing information in the field of innovation management  |
| 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-7.1. Demonstrates knowledge of technological and software solutions for managing innovation processes<br>GPC-7.2. Demonstrates knowledge of the features of 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   | OPK-8.1. Performs the experiment according to the specified methods<br>OPK-8.2. Demonstrates knowledge of modern information technologies necessary to summarize the results of the experiment  |
| 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-9.1. Demonstrates knowledge of the history and philosophy of innovations and uses them to solve problems<br>GPC-9.2 Demonstrates knowledge of technological structures and uses them to solve problems  |
| GPC-10 Able to develop, combine and adapt algorithms and software applications suitable   | GPC-10.1 Develops algorithms and software applications necessary to solve the problem of digitalization   |

|  |  |
|--|--|
| for solving practical problems of digitalization in the field of professional activity   | GPC-10.2. Shows knowledge of key digitalization trends   |
| 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 | GPC-11.1. Develops algorithms and software applications for solving practical problems<br>GPC-11.2. Shows knowledge of methods of combining algorithms |

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 title of occupational standard for relevant PC                             |
|---|--|---|
| 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-1.1 Demonstrates knowledge of the key principles of managing a creative team<br>PC-1.2. Uses tools for assessing the quality and effectiveness of work                        | 40.033 Specialist in strategic and tactical planning and organization of production |
| 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-2.1. Demonstrates knowledge of assessing the quality, cost and competitiveness of an innovative product or service<br>PC-2.2. Uses methods for assessing 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  | PC-3.1. Uses methods of technical and economic design of innovative industries<br>PC-3.2 Develops a plan and program for the organization of innovative activities               |   |

**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

| Code           | Titles of subjects and internship, forming competences  | GENERIC 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 organize and manage the work 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 |
| <b>B1</b>      | <b>DISCIPLINES (MODULES)</b>  |  |  |   |  |  |   |  |
| <b>B1.O</b>    | <b>Mandatory part</b>   |  |  |   |  |  |   |  |
| <b>B1.O.01</b> | <b>Core component</b>   | GC-1.1   | GC-2.1, GC-2.2   |   | GC-4.1   | GC-5.1, GC-5.2   |   | GC-7.1, GC-7.2   |
| B1.O.01.01     | Professional Russian (as a Foreign Language) / Русский язык (как иностранный) в профессиональной деятельности |  |  |   | GC-4.1   | GC-5.1, GC-5.2   |   |  |
| B1.O.01.02     | Methodology of Scientific Research / Методология научного исследования  | GC-1.1   |  |   |  |  |   |  |
| B1.O.01.03     | Design of automated control systems / Проектирование автоматизированных систем управления                     |  | GC-2.1, GC-2.2   |   |  |  |   | GC-7.1, GC-7.2   |
| <b>B1.O.02</b> | <b>Variable component</b>   | GC-1.2   |  | GC-3.1, GC-3.2  | GC-4.2   |  | GC-6.1, GC-6.2  | GC-7.1, GC-7.2   |
| B1.O.02.01     | Big data mining / Обработка больших данных  |  |  |   |  |  |   |  |

|                |  |        |  |                |        |  |                |                |
|----------------|--|--------|--|----------------|--------|--|----------------|----------------|
| Б1.О.02.02     | Information Technology in Mathematical Modelling / Информационные технологии в математическом моделировании                            | GC-1.2 |  |                |        |  |                |                |
| Б1.О.02.03     | Numerical methods for solving mathematical modeling problems / Численные методы решения задач математического моделирования            | GC-1.2 |  |                |        |  | GC-6.1, GC-6.2 |                |
| Б1.О.02.04     | Management of business operations of hi-tech industries / Управление операционной деятельностью наукоемких производств                 |        |  |                |        |  |                |                |
| Б1.О.02.05     | Strategic Development of an Innovative Enterprise / Стратегическое развитие инновационного предприятия                                 |        |  |                |        |  |                |                |
| Б1.О.02.06     | Innovation technologies of personnel management / Инновационные технологии управления персоналом                                       |        |  | GC-3.1, GC-3.2 | GC-4.2 |  |                |                |
| Б1.О.02.07     | Digital technologies of innovative production / Цифровые технологии инновационного производства  |        |  |                | 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 предприятии                               |        |  |                |        |  |                |                |
| Б1.О.02.10     | Economy of hi-tech production branches / Экономика высокотехнологичных отраслей промышленности   |        |  |                |        |  |                |                |
| 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 инновационном предприятии                         |        |  |                |        |  |                |                |
| Б1.О.02.13     | Run-time controlling at innovative enterprise / Оперативный контроллинг на инновационном предприятии                                   |        |  |                |        |  |                |                |
| <b>Б1.В</b>    | <b>The part formed by the participants of educational relations</b>  |        |  |                |        |  |                |                |
| Б1.В.ДВ.01.01  | Ecological management at innovative enterprise / Экологический менеджмент на инновационных предприятиях                                |        |  |                |        |  |                |                |
| Б1.В.ДВ.01.02  | Innovative technologies of ecological management in industries / Инновационные технологии природопользования в отраслях промышленности |        |  |                |        |  |                |                |
| Б1.В.ДВ.02.01  | Assessment of innovative-investment projects effectiveness / Оценка эффективности инновационно-инвестиционных проектов                 |        |  | GC-3.2         |        |  |                |                |
| Б1.В.ДВ.02.02  | International sci-tech cooperation / Международное научно-техническое сотрудничество   |        |  | GC-3.2         |        |  |                |                |
| <b>Block 2</b> | <b>TRAINING</b>  |        |  |                |        |  |                |                |
| <b>Б2.О</b>    | <b>Mandatory part</b>  |        |  |                |        |  |                |                |
| Б2.О.01        | <b>Variable component</b>  |        |  |                |        |  |                |                |
| Б2.О.01.01(У)  | Introductory training / Ознакомительная практика   |        |  |                |        |  |                |                |
| Б2.О.01.02(У)  | Organisation and managerial practice (educational) / Организационно-управленческая практика  |        |  |                |        |  |                |                |





| Code       | Titles of subjects and internship, forming competences   | GENERAL PROFESSIONAL COMPETENCIES  |   |  |   |   |  |  |   |   |  |  |
|------------|--|--|---|--|---|---|--|--|---|---|--|--|
|            |  | GPC-1 Able to analyze and identify the natural science essence of control problems in technical systems on the basis of provisions, laws and methods in the field of mathematics, natural and technical sciences | GPC-2 Able to formulate management problems in technical systems and justify methods for solving them | 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 | GPC-5 Able to conduct patent research, determine the forms and methods of legal protection and protection of rights to the result of intellectual activity, dispose of the rights to them to solve problems in the field of development of science, technology and technology | GPC-6 Able to collect and analyze scientific and technical information, summarize domestic and foreign experience in the field of innovation management and building innovation ecosystems | 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 |
| B1         | DISCIPLINES (MODULES)  |  |   |  |   |   |  |  |   |   |  |  |
| B1.O       | Mandatory part   |  |   |  |   |   |  |  |   |   |  |  |
| B1.O.01    | Core component   | GPC-1.1,<br>GPC-1.2  | GPC-2.1,<br>GPC-2.2   | GPC-3.1  | GPC-4.1,<br>GPC-4.2   | GPC-5.2   | GPC-6.1,<br>GPC-6.2  | GPC-7.1,<br>GPC-7.2  | GPC-8.1,<br>GPC-8.2   | GPC-9.1, GPC-9.2  | ОПК-10.1,<br>ОПК-10.2  | ОПК-11.1,<br>ОПК-11.2  |
| B1.O.01.01 | Professional Russian (as a Foreign Language) /<br>Русский язык (как иностранный) в профессиональной деятельности |  |   |  |   |   |  |  |   |   |  | ОПК-11.1,<br>ОПК-11.2  |
| B1.O.01.02 | Methodology of Scientific Research / Методология<br>научного исследования  | GPC-1.1,<br>GPC-1.2  | GPC-2.1,<br>GPC-2.2   | GPC-3.1  |   | GPC-5.2   |  |  |   |   |  |  |
| B1.O.01.03 | Design of automated control systems /<br>Проектирование автоматизированных систем<br>управления                  |  |   |  | GPC-4.1,<br>GPC-4.2   |   | GPC-6.1,<br>GPC-6.2  | GPC-7.1,<br>GPC-7.2  | GPC-8.1,<br>GPC-8.2   |   | ОПК-10.1,<br>ОПК-10.2  |  |
| B1.O.02    | Variable component   |  | GPC-2.1,<br>GPC-2.2   | GPC-3.1,<br>GPC-3.2  | GPC-4.1,<br>GPC-4.2   | GPC-5.1,<br>GPC-5.2   | GPC-6.1,<br>GPC-6.2  | GPC-7.1,<br>GPC-7.2  | GPC-8.2   | GPC-9.1, GPC-9.2  |  |  |
| B1.O.02.01 | Big data mining / Обработка больших данных   |  |   |  | GPC-4.2   |   |  |  | GPC-8.2   |   |  |  |

[illegible]

[illegible]

| Code           | Titles of subjects and internship, forming competences  | PROFESSIONAL COMPETENCIES   |   |  |
|----------------|---|---|---|--|
|                |   | 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 |
| <b>B1</b>      | <b>DISCIPLINES (MODULES)</b>  |   |   |  |
| <b>B1.O</b>    | <b>Mandatory part</b>   |   |   |  |
| <b>B1.O.01</b> | <b>Core component</b>   |   |   |  |
| B1.O.01.01     | Professional Russian (as a Foreign Language) / Русский язык (как иностранный) в профессиональной деятельности               |   |   |  |
| B1.O.01.02     | Methodology of Scientific Research / Методология научного исследования  |   |   |  |
| B1.O.01.03     | Design of automated control systems / Проектирование автоматизированных систем управления                                   |   |   |  |
| <b>B1.O.02</b> | <b>Variable component</b>   | PC-1.1, PC-1.2  | PC-2.1, PC-2.2  | PC-3.1, PC-3.2   |
| B1.O.02.01     | Big data mining / Обработка больших данных  |   |   | PC-3.2   |
| B1.O.02.02     | Information Technology in Mathematical Modelling / Информационные технологии в математическом моделировании                 |   |   |  |
| B1.O.02.03     | Numerical methods for solving mathematical modeling problems / Численные методы решения задач математического моделирования |   |   |  |
| B1.O.02.04     | Management of business operations of hi-tech industries / Управление операционной деятельностью наукоемких производств      |   | PC-2.1  | PC-3.2   |
| B1.O.02.05     | Strategic Development of an Innovative Enterprise / Стратегическое развитие инновационного предприятия                      |   |   | PC-3.2   |
| B1.O.02.06     | Innovation technologies of personnel management / Инновационные технологии управления персоналом                            | PC-1.1, PC-1.2  |   |  |
| B1.O.02.07     | Digital technologies of innovative production / Цифровые технологии инновационного производства                             |   |   | PC-3.2   |
| B1.O.02.08     | Geoinformation Systems and Applications / Геоинформационные системы и их применение   |   | PC-2.2  |  |
| B1.O.02.09     | Strategic controlling at innovative enterprise / Стратегический контроллинг на  |   | PC-2.1  | PC-3.2   |

|                |  |        |        |        |
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|                | инновационном предприятии  |        |        |        |
| Б1.О.02.10     | Economy of hi-tech production branches / Экономика высокотехнологичных отраслей промышленности   |        | PC-2.1 |        |
| 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 поставок на инновационном предприятии                         |        | PC-2.1 |        |
| Б1.О.02.13     | Run-time controlling at innovative enterprise / Оперативный контроллинг на инновационном предприятии                                   |        |        | PC-3.1 |
| <b>Б1.В</b>    | <b>The part formed by the participants of educational relations</b>  |        |        |        |
| Б1.В.ДВ.01.01  | Ecological management at innovative enterprise / Экологический менеджмент на инновационных предприятиях                                |        | PC-2.2 |        |
| Б1.В.ДВ.01.02  | Innovative technologies of ecological management in industries / Инновационные технологии природопользования в отраслях промышленности |        | PC-2.2 |        |
| Б1.В.ДВ.02.01  | Assessment of innovative-investment projects effectiveness / Оценка эффективности инновационно-инвестиционных проектов                 |        | PC-2.1 |        |
| Б1.В.ДВ.02.02  | International sci-tech cooperation / Международное научно-техническое сотрудничество   |        | PC-2.1 |        |
| <b>Block 2</b> | <b>TRAINING</b>  |        |        |        |
| <b>Б2.О</b>    | <b>Mandatory part</b>  |        |        |        |
| Б2.О.01        | <b>Variable component</b>  | АII PC | АII PC | АII PC |
| Б2.О.01.01(У)  | Introductory training / Ознакомительная практика   | АII PC | АII PC | АII PC |
| Б2.О.01.02(У)  | Organisation and managerial practice (educational) / Организационно-управленческая практика (учебная)                                  | АII PC | АII PC | АII PC |
| Б2.О.01.03(П)  | Organisation and managerial practice / Организационно-управленческая практика  | АII PC | АII PC | АII PC |
| <b>Б2.В</b>    | <b>The part formed by the participants of educational relations</b>  |        |        |        |
| Б2.В.01(Пд)    | Pre-graduate practice / Преддипломная практика   | АII PC | АII PC | АII PC |
| <b>Block 3</b> | <b>FINAL STATE ASSESSMENT</b>  |        |        |        |
| Б3.01(Г)       | State exam / Государственный экзамен   | АII PC | АII PC | АII PC |
| Б3.02(Д)       | Final qualification work / Выпускная квалификационная работа   | АII PC | АII PC | АII PC |