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ФИО: Ястребов Олег Александрович
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**Federal State Autonomous Educational Institution for Higher Education
Peoples' Friendship University of Russia**

Higher School of Industrial Policy and Entrepreneurship
(faculty/institute/academy - the higher education program developer)

Утверждена на заседании Ученого
совета РУДН протокол № 8
от « 11 » апреля 2022 г.

Открыта приказом ректора РУДН
№ 261
от « 25 » апреля 2022 г.

**ОСНОВНАЯ ПРОФЕССИОНАЛЬНАЯ ОБРАЗОВАТЕЛЬНАЯ ПРОГРАММА
ВЫСШЕГО ОБРАЗОВАНИЯ (ОП ВО)**

Направление подготовки/специальность:

38.04.02 Менеджмент

(код и наименование направления подготовки/специальности)

Направленность (профиль/специализация):

Инженерный менеджмент

(наименование ОП ВО)

Образовательная программа разработана в соответствии с требованиями:
ОС ВО РУДН, утвержденного приказом ректора № 371 от « 21 » мая 2021 г.

Уровень образования:

магистратура

(бакалавриат/специалитет/магистратура/ординатура – вписать нужное)

Квалификация выпускника:

магистр

(квалификация выпускника в соответствии с приказом Минобрнауки России от 12.09.2013 г. №1061)

Срок получения образования по ОП ВО:

2 года

(очная форма обучения)

(очно-заочная форма обучения)

(заочная форма обучения)

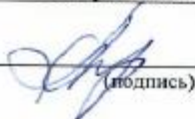
Сведения об особенностях реализации программы: программа реализуется на
английском языке.

СОГЛАСОВАНО:


Руководитель ОП ВО
Островская А.А.

Председатель МССН
Ефремов В.С.

Руководитель ОУП
Островская А.А.


(подпись)


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2023 г.

1. THE PURPOSE (MISSION) OF THE HIGHER EDUCATION PROGRAM

The goal of mastering the *Engineering Management* educational program is to provide comprehensive knowledge in the area of theory and practice of innovation management, to provide engineers with modern tools in the construction of production and industrial management systems.

The mission of the program is to educate and train future managers to solve complex production problems using engineering and managerial skills.

The program focuses on such areas as Industry 4.0, TIPS, innovation management and corporate management.

The mission determines the general principles and organization of work on the implementation of the educational program in the 38.04.02. Management training program: goals and objectives, content and expected results, conditions and technologies for the implementation of the educational process, assessment of the quality of graduate training. The mission is the foundation for long-term and current planning of activities in the implementation of master's degree training and is focused on the proactive identification of problems.

Objectives of the development of the educational program in the 38.04.02. "Management" training program:

- improving structure content and organization of educational activities using the best practices of national and foreign universities;
- strengthening human resources and material base, improving methodological and informational support of the educational process;
- involving business and non-profit sector representatives in conducting trainings, master classes and special courses;
- expanding the range of disciplines and courses offered in new priority areas of socio-economic development;
- attracting employers and customers for the educational programs development;
- developing academic mobility.

The main educational program in the 38.04.02. Management training program, the Master's degree in *Engineering Management* contributes to the diversification of training areas and educational services provided by the university.

According to the RUDN University Educational Standards, the Master's Principal Professional Program envisages building up the students' personal qualities, universal, general professional and professional competencies that contribute to successful work in the specialization of training.

The Principal Professional Program regulates the goals, expected results, content, conditions and technologies of the educational process to ensure the training of high qualified personnel in the areas of professional activity of the master's degree program.

The list of universal, general professional and professional competencies that a graduate should possess as a result of mastering this educational program meets professional activity and the requirements of employers.

2. RELEVANCE, SPECIFICITY, UNIQUENESS OF THE EDUCATIONAL PROGRAM

In the main program of higher education in the 38.03.02 Management training program, in the *Engineering management* profile:

Network implementation - not provided.

E-learning - not provided.

Remote learning - not provided.

The modular principle of representing the content of the basic educational program - not provided.

The modular principle of plan presentation - not provided.

Teaching of the program in a foreign language - provided.

3. THE JOB MARKET NEED FOR PERSONNEL TRAINING IN THE PROFILE OF THE HIGHER EDUCATION PROGRAM

The *Engineering Management* main program of higher education is designed to provide the necessary skills for the successful conduct of organizational and managerial activities in the industrial area; to form skills for finding complex solutions to the problems of developing industrial enterprises on the basis of their reconstruction and modernization.

Potential employers:

1. Rostec Group of Companies
2. Roscosmos Group of Companies
3. Schvabe Innovative Holding
4. Roselectronics Holding Company

5. SPECIAL REQUIREMENTS FOR POTENTIAL APPLICANTS

The University enrolls citizens of the Russian Federation, foreign citizens and stateless persons to study under educational programs of higher education on the basis of the Federal State Autonomous Educational Institution for Higher Education “Peoples' Friendship University of Russia” Admission Regulations to study under educational programs of higher education – bachelor's degree programs, specialty programs, master's degree programs for the next academic year.

Admission terms:

- 1) Higher education (bachelor's degree, specialist's degree, master's degree)
- 2) Successful completion of the entrance test in the Management training program (see the information on the RUDN website – www.rudn.ru, the “Applicant” tab).

6. FEATURES OF THE PROFESSIONAL PROGRAM OF HIGHER EDUCATION

6.1. The professional program of higher education is implemented *with no use* of e-learning/remote learning technologies.

6.2. The language of the professional program of higher education is English.

6.3. The program is not *adapted for teaching* for disabled people and people with health impairments.

6.4. The professional program of higher education is implemented by the Federal State Autonomous Educational Institution for Higher Education “Peoples' Friendship University of Russia”.

6.5. Information about the planned bases for conducting training/work experience internships and (or) R&D

| Practice* | Practice Place <i>(name of the organization, location)</i> |
|---|---|
| Introductory practice, method of conducting - stationary | JSC “Russian Space Systems”; FSUE “Scientific and Production Association "Technomash"”; Joint Stock Company "Research-and-Production Corporation “Precision Systems and Instruments””; PJSC “United Aircraft Corporation”; JSC “MMP named after V.V. Chernyshev”; JSC “NPC gasoturbostruniya "Salyut"”; FSUE TSNIIMASH; JSC “Technodinamika”. |
| Work experience internship, method of conducting - stationary | JSC “Russian Space Systems”; FSUE “Scientific and Production Association "Technomash"”; Joint Stock Company “Research-and-Production Corporation “Precision Systems and Instruments””; PJSC “United Aircraft Corporation”; JSC “MMP named after V.V. Chernyshev”; JSC “NPC gasoturbostruniya "Salyut"”; FSUE TSNIIMASH; JSC “Technodinamika”. |
| Pre-graduate practice, method of conducting - stationary | JSC “Russian Space Systems”; FSUE “Scientific and Production Association "Technomash"”; Joint Stock Company "Research-and-Production Corporation “Precision Systems and Instruments””; PJSC “United Aircraft Corporation”; JSC “MMP named after V.V. Chernyshev”; JSC “NPC gasoturbostruniya "Salyut"”; FSUE TSNIIMASH; JSC “Technodinamika”. |

* - the following must be indicated: the type of practice (educational / industrial), the type of practice, its name (introductory, technological, research, pre-graduate, etc.), the method of conducting (stationary / field).

7. CHARACTERISTIC OF A GRADUATE’S PROFESSIONAL ACTIVITY

7.1. The field(s) and/or the sphere(s) of professional activity of the higher education program graduate:

The area of Master's degree programs graduates' professional activity includes:

- entities of various organizational and legal forms where graduates work as executives or managers in various industrial management services;
- state and municipal administration authorities;
- structures where graduates become entrepreneurs who set up and develop their own business;
- research organizations related to the solution of managerial problems;
- institutions of higher and additional professional education.

7.2. Type(s) of professional activity tasks that a graduate is preparing to solve within the framework of mastering the higher education program: organizational and managerial:

- drafting strategies for the organizations' development and their individual divisions;
- heading divisions and organizations of various forms of ownership, state and municipal authorities;
- managing creative teams (groups) to solve organizational and managerial tasks and guiding them.

7.3. The list of generalized labor functions and labor functions related to the professional work of the higher educational institution graduate, whereby the program was developed*

| Code and Name of Prof. Standard | Generalized Labor Functions | | | Labor Functions | | |
|--|-----------------------------|--|---------------------|---|------|--------------------------------|
| | Code | Name | Qualification Level | Name | Code | Qualification Level (Sublevel) |
| 40.033 Professional Standard "Specialist in Strategic and Tactical Planning and Production Organization" | 40.033 | Management of processes of strategic and tactical planning and organization of industrial productions of various types using modern information and telecommunication technologies | 7 | Strategic management of planning processes and organization of production at the industrial level | B7 | 7 |

* - the formulation of labor functions is taken from the relevant Professional Standards (if any).

8. REQUIREMENTS FOR HIGHER EDUCATION PROGRAM COMPLETION AND LEARNING OUTCOMES

8.1. Upon completion of the Educational Program, the graduate is expected to acquire the following Generic Competences (GCs):

| Code and descriptor of the generic competences | Code and name of the competence achievement indicator |
|--|---|
|--|---|

| | |
|---|---|
| <p>GC-1. Ability to perform critical analysis of problematic situations based on the systemic approach and to develop a plan of action</p> | <p>GC-1.1 Analyzes the task and singles out its basic components GC-1.2 Defines and prioritizes the information needed to solve the task GC-1.3 Searches the information to solve the task by various types of queries GC-1.4 Offers solutions to the problem, analyzes the possible consequences of their use GC-1.5 Analyzes the ways of solving problems of worldview, moral and personal nature based on the use of fundamental philosophical ideas and categories in their historical development and socio-cultural context</p> |
| <p>GC-2. Ability to manage a project at all lifecycle stages</p> | <p>GC-2.1 Specifies a problem, the solution of which is linked to the achievement of the project goal GC-2.2 Defines the links between the tasks set and the expected outcomes of their solution GC-2.3 Determines the available resources and limits, the valid legal norms within the framework of the tasks GC-2.4 Analyzes the project implementation schedule and chooses the best way to solve the tasks, based on the current legal norms and available resources and limitations GC-2.5 Monitors the progress of the project, adjusts the schedule in accordance with the results of the control</p> |
| <p>GC-3 Capability to organize and lead the team's work developing a team strategy to achieve the goal</p> | <p>GC-3.1 Defines his role in the team based on the strategy of cooperation to achieve the goal GC-3.2 Forms and considers throughout his activities the peculiarities of the behavior of groups of people, identified depending on the goal GC-3.3 Analyzes the possible consequences of personal actions and plans his actions to achieve a targeted result GC-3.4 Exchanges information, knowledge and experience with team members GC-3.5 Argues his point of view regarding the use of the ideas of other team members to achieve the goal GC-3.6 Participates in team work on the assignments performance.</p> |
| <p>GC-4. Capability to apply modern communication technologies on the official language of the Russian Federation and foreign language(s) for scholastic and professional interaction</p> | <p>GC-4.1 Chooses the business communication style, depending on the language of communication, the terms and goals of partnership GC-4.2 Adjusts speech, communication style and sign language to interaction situations GC-4.3 Searches the necessary information to solve standard communication tasks in Russian and foreign languages GC-4.4 Enters into business correspondence in Russian and foreign languages, considering the peculiarities of the style of official and informal letters and cross-cultural differences in correspondence GC-4.5 Uses dialogue for cooperation in scholastic communication of communication considering the personality of the interlocutors, their communicative speech strategy and tactics, the degree of the situation formality GC-4.6 Forms and argues its own assessment of the main ideas of the participants of the dialogue (discussion) in accordance with the goals of cooperation</p> |
| | <p>GC-5.1 Interprets the history of Russia in the context of world historical development GC-5.2 Finds and uses information about cultural peculiarities and traditions of various social groups in social and professional communication GC-5.3 Considers the historical heritage and socio-cultural traditions</p> |

| | |
|--|---|
| <p>GC-5. Capability to analyze and consider the diversity of cultures in the process of cross-cultural interaction.</p> | <p>of various social groups, ethnic groups and confessions, including world religions, philosophical and ethical teachings, in social and professional communication on a given topic GC-5.4 Gathers information on a given topic, considering the ethnic groups and faiths most widely represented at the study sites GC-5.5 Substantiates the specifics of project and team activities with representatives of other ethnic groups and (or) confessions GC-5.6 Adheres to the principles of non-discriminatory interaction in personal and mass communication in order to fulfill professional tasks and strengthen social integration</p> |
| <p>GC-6. Capable to determine and implement the priorities of his/her own activities and ways to improve it based on self-assessment.</p> | <p>GC-6.1 Controls the amount of time spent on specific activities GC-6.2 Develops tools and time management techniques when performing specific tasks, projects, goals GC-6.3 Analyzes its resources and their limits (personal, situational, temporary, etc.) for the successful completion of the task GC-6.4 Allocates tasks for long-, medium- and short-term with justification of relevance and analysis of resources for their implementation</p> |
| <p>GC-7. Capability to use digital technologies and methods of searching, processing, analyzing, storing and presenting information (in the professional area) in the context of digital economy and modern corporate information culture.</p> | <p>GC-7.1. Searches the necessary sources of information and data, perceives, analyzes, consolidates and transfers information using digital tools, as well as using algorithms when working with data obtained from various sources in order to use efficiently the information received for problem solving; GC-7.2. Assesses information, its reliability, makes logical thoughts based on incoming information and data; GC-7.3. Follows and promotes the norms of a healthy lifestyle in various life situations and in professional work.</p> |

8.2. Upon completion of the Educational Program, the graduate is expected to acquire the following Generic Professional Competences (GPCs):

| Code and descriptor of the Generic Competences | Code and Name of the Competence Achievement Indicator |
|---|---|
| <p>GPC-1. Capability to solve professional tasks based on knowledge (at an advanced level) of economic, organizational and managerial theory, innovative approaches, generalization and critical analysis of management practices.</p> | <p>GPC-1.1 Has fundamental knowledge in management GPC-1.2 Can apply the fundamental knowledge of economic, organizational and managerial theory for the successful work GPC-1.3 Applies innovative approaches to solve management tasks, considering the generalization and critical analysis of best management practices GPC-1.4 Has the skills of an informed choice of methods for solving practical and research problems</p> |
| <p>GPC-2. Capability to apply modern techniques and methods of data collection, advanced methods of their processing and analysis, including the use of smart information and analytical systems, in order to solve management and research tasks.</p> | <p>GPC-2.1 Masters modern techniques and methods of data collection, search, processing, analysis and evaluation of information for management problems solving GPC-2.2 Analyzes and simulates management processes in order to optimize the organization's activities GPC-2.3 Uses modern digital systems and methods in solving management and research problems solving</p> |
| <p>GPC-3. Capability to make reasonable organizational and managerial decisions independently, evaluate their operational and organizational efficiency, and social significance, ensure their implementation in terms of a complex (cross-cultural) and dynamic environment.</p> | <p>GPC-3.1 Masters the methods of making the best possible management decisions in a dynamic business environment GPC-3.2 Makes reasonable organizational and managerial decisions GPC-3.3 Evaluates the operational and organizational efficiency and social significance of organizational and managerial decisions GPC-3.4 Ensures the implementation of organizational and managerial decisions in a complex (cross-cultural) and dynamic environment</p> |
| <p>GPC-4. Capability to manage project and process activities in an organization using modern management practices, as well as leadership and communication skills, to identify and evaluate new market opportunities, develop strategies to create and develop innovative activities and corresponding business models of organizations.</p> | <p>GPC-4.1 Applies modern methods, technologies and tools for managing project and process activities in the company GPC-4.2 Applies modern management practices, leadership and communication skills in process and project works GPC-4.3 Identifies and evaluates new market opportunities for the development of the company innovative activities GPC-4.4 Drafts company development strategies and corresponding business models based on the modern business positioning methods</p> |

| Code and Descriptor of the Generic Competences | Code and Name of the Competence Achievement Indicator |
|--|---|
| GPC-5. Capability to generalize and evaluate critically scientific research in management and related fields, to carry out research projects. | GPC-5.1 Can draft a plan of scientific research in the management based on the evaluation and generalization of the results of scientific works of national and foreign scientists GPC-5.2 Uses modern methods, technologies and tools for gathering the information, processing it and critically evaluating the results of scientific research in management GPC-5.3 Masters the skills to generalize and formulate conclusions, develop recommendations based on the results of scientific research in management GPC-5.4 Participates in the implementation of R&D projects in management and related industries |
| Capability to evaluate critically the possibilities of digital technologies for solving professional tasks, work with digital data, evaluate their sources and relevance | GPC-6.1 Masters digital technologies for the successful solution of professional challenges GPC-6.2 can work with digital data, evaluate their sources and relevance GPC-6.3 Can use general or specialized application software packages designed to perform professional tasks |

8.3. Upon completion of the Educational Program, the graduate is expected to acquire the following Professional Competences (GCs):

| Code and Descriptor of the Generic Competences | Code and Name of the Competence Achievement Indicator | Code and Name of Prof. Standard |
|--|--|--|
| Capability to manage the efficiency of an investment project | PC-1.1 Defines the operations and their sequence to implement the investment project PC-1.2 Evaluates the resources of operations, calculation human resources and determines the participants in the investment project PC-1.3 Plans the implementation stages of the investment project, ensures the quality and quality control of the investment project implementation PC-1.4 Can work in specialized software for the preparation and implementation of an investment project PC-1.5 Can search the necessary information for the preparation and implementation of an | |

| Code and Descriptor of the Generic Competences | Code and Name of the Competence Achievement Indicator | Code and Name of Prof. Standard |
|---|---|--|
| | investment project PC-1.6 Can identify and assess the degree (level) of an investment project risks and develop measures to manage them investment project | |
| PC-2 Capability to assess the business opportunities of an organization necessary for strategic changes in the Organization | PC-2.1 Can identify, analyze and evaluate inconsistencies between the parameters of the current and future organization states PC-2.2 Can present business analysis information in various ways and in various formats for discussion with stakeholders PC-2.3 Apply information technology to the extent necessary for the business analysis goals | |
| PC-3 Ability to manage organizations, departments, groups (teams) of employees, projects and networks | PC-3.1 Applies various organization management techniques existing in Russia and abroad PC-3.2 Applies generally accepted standards for effective interaction within the organization | |

* - The PC is formulated by the program developer, considering the requirements of professional standards and the orientation of the higher education program.

9. The MATRIX OF COMPETENCIES formed by students during the development of the *Engineering Management* higher education program, in the 38.04.02. Management training program

| Code | The Name of the Disciplines/Modules that build the competencies of students | GC-1 | GC-2 | GC-3 | GC-4 | GC-5 | GC-6 | GC-7 |
|-----------------|---|---|--------------------------------|--|----------------------------|------------------------------------|---------------------------------------|-------------------|
| | | Ability to perform | Ability to manage a project at | Capability to organize and lead | Capability to apply modern | Capability to analyze and consider | Capability to determine and implement | Capability to use |
| Block 1. | Disciplines (Modules) | | | | | | | |
| B1.O | Mandatory Part | | | | | | | |
| B1.0.01 | Basic Component | | | | | | | |
| B1.0.01.01 | Managerial Economics | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | |
| B1.0.01.02 | Methodology of Management Problems Research | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | GC-7.1; GC-7.2 |
| B1.0.01.03 | Management Organization Theory | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | GC-3.1, GC-3.2; GC-3.3; GC-3.4; GC-3.5; GC-3.6 | | | GC-6.1; GC-6.2; GC-6.3; GC-6.4 | |
| B1.0.01.04 | Modern Strategic Analysis | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | |

| Code | The Name of the Disciplines/Modules that build the competencies of students | GC-1 | GC-2 | GC-3 | GC-4 | GC-5 | GC-6 | GC-7 |
|----------------|---|---|--------------------------------|--|----------------------------|------------------------------------|--|-------------------|
| | | Ability to perform | Ability to manage a project at | Capability to organize and lead | Capability to apply modern | Capability to analyze and consider | Capability to determine and implement priorities | Capability to use |
| B1.0.01 05 | Professional Command of Foreign Language | | | | | | | |
| B1.0.02 | Elective Component | | | | | | | |
| B1.0.02. 01 | Enterprise Finance and Investment in Engineering Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | |
| B1.0.02. 02 | Innovation Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | GC-6.1; GC-6.2; GC-6.3; GC-6.4 | |
| B1.0.02. 03 | Organization and Production Management | | | GC-3.1, GC-3.2; GC-3.3; GC-3.4; GC-3.5; GC-3.6 | | | | GC-7.1; GC-7.2 |
| B1.0.02. 04 | Strategic Management in Industrial Companies | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1 | | | | | |
| B1.0.02. 05 | Marketing and Competitiveness Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | GC-6.1; GC-6.2; GC-6.3; GC-6.4 | |

| Code | The Name of the Disciplines/Modules that build the competencies of students | GC-1 | GC-2 | GC-3 | GC-4 | GC-5 | GC-6 | GC-7 |
|---------------|---|---|--------------------------------|---|----------------------------|------------------------------------|--|-------------------|
| | | Ability to perform | Ability to manage a project at | Capability to organize and lead | Capability to apply modern | Capability to analyze and consider | Capability to determine and implement priorities | Capability to use |
| B1.0.02.06 | Accounting in Engineering Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | |
| B1.0.02.07 | Commercial Law and Legal Engineering | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | GC-3.1, GC-3.2; GC-3.3; GC-3.4; GC-3.5; GC-3.6 | | | | |
| B1.0.02.08 | Evaluation of Labor Efficiency and Personnel Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | GC-7.1; GC-7.2 |
| B1.0.02.09 | Agile Project Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | GC-7.1; GC-7.2 |
| B1.V.DV.01 | Elective Disciplines (Modules) 1 (DV.1) | | | | | | | |
| B1.V.DV.01.01 | Engineering Innovations | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1 | | | | | |

| Code | The Name of the Disciplines/Modules that build the competencies of students | GC-1 | GC-2 | GC-3 | GC-4 | GC-5 | GC-6 | GC-7 |
|-------------------|---|---|--------------------------------|---|---|------------------------------------|--|-------------------|
| | | Ability to perform | Ability to manage a project at | Capability to organize and lead | Capability to apply modern | Capability to analyze and consider | Capability to determine and implement priorities | Capability to use |
| B1.V.DV .01.02 | Economics and Management of Energy & Environment | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1 | | | | | |
| B1.V.DV .02 | Elective Disciplines (Modules) 2 (DV.2) | | | | | | | |
| B1.V.DV .02.01 | Business Process Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | GC-4.1; GC-4.2; GC-4.3; GC-4.4; GC-4.5; GC-4.6 | | | |
| B1.V.DV .02.02 | Cloud Technologies in Enterprise Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | GC-4.1; GC-4.2; GC-4.3; GC-4.4; GC-4.5; GC-4.6 | | | |
| B1.V.DV .03 | Elective Disciplines (Modules) 3 (DV.3) | | | | | | | |
| B1.V.DV .03.01 | Lean Manufacturing | | | | | | | |
| B1.V.DV .03.02 | Data Mining and Decision Making | | | GC-3.1, GC-3.2; GC-3.3; GC-3.4; GC-3.5; GC-3.6 | | | | |
| B1.V.DV .04 | Elective Disciplines (Modules) 4 (DV.4) | | | | | | | |

| Code | The Name of the Disciplines/Modules that build the competencies of students | GC-1 | GC-2 | GC-3 | GC-4 | GC-5 | GC-6 | GC-7 |
|---------------|---|---|--------------------------------|---------------------------------|----------------------------|------------------------------------|--|-------------------|
| | | Ability to perform | Ability to manage a project at | Capability to organize and lead | Capability to apply modern | Capability to analyze and consider | Capability to determine and implement priorities | Capability to use |
| B1.V.DV.04.01 | Standardization and Quality Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | GC-7.1; GC-7.2 |
| B1.V.DV.04.02 | Industrial Ecology | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | | | | | | GC-7.1; GC-7.2 |
| B1.V.DV.05 | Elective Disciplines (Modules) 5 (DV.5) | | | | | | | |
| B1.V.DV.05.01 | Fundamentals of Logistics and Supply Chain Management | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1 | | | | | |
| B1.V.DV.05.02 | Enterprise Management Information System | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1 | | | | | |
| B2.0.01 | Basic Component | | | | | | | |
| B2.0.02 | Elective Component | | | | | | | |
| B2.0.02.01(N) | Master's Degree R&D | GC-1.1; GC-1.2; GC-1.3; | | | GC-4.1; GC-4.2; GC-4.3; | | | |

| Code | The Name of the Disciplines/Modules that build the competencies of students | GC-1 | GC-2 | GC-3 | GC-4 | GC-5 | GC-6 | GC-7 |
|----------------|---|---|---|--|--|--|--|-------------------|
| | | Ability to perform | Ability to manage a project at | Capability to organize and lead | Capability to apply modern | Capability to analyze and consider | Capability to determine and implement priorities | Capability to use |
| | | GC-1.4; GC-1.5. | | | GC-4.4; GC-4.5; GC-4.6 | | | |
| B2.0.02.02(Pd) | Pre-graduation Practice | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1; GC-2.2; GC-2.3; GC-2.4; GC-2.5. | GC-3.1, GC-3.2; GC-3.3; GC-3.4; GC-3.5; GC-3.6 | GC-4.1; GC-4.2; GC-4.3; GC-4.4; GC-4.5; GC-4.6 | GC-5.1; GC-5.2; CC-5.3; GC-5.4; GC-5.5; CC-5.6 | GC-6.1; GC-6.2; GC-6.3; GC-6.4 | GC-7.1; GC-7.2 |
| B3.01 | Interdisciplinary Examination | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1; GC-2.2; GC-2.3; GC-2.4; GC-2.5. | GC-3.1, GC-3.2; GC-3.3; GC-3.4; GC-3.5; GC-3.6 | GC-4.1; GC-4.2; GC-4.3; GC-4.4; GC-4.5; GC-4.6 | GC-5.1; GC-5.2; CC-5.3; GC-5.4; GC-5.5; CC-5.6 | GC-6.1; GC-6.2; GC-6.3; GC-6.4 | GC-7.1; GC-7.2 |
| B3.02 | Preparing for Defense and Defense of the Degree Thesis | GC-1.1; GC-1.2; GC-1.3; GC-1.4; GC-1.5. | GC-2.1; GC-2.2; GC-2.3; GC-2.4; GC-2.5 | GC-3.1, GC-3.2; GC-3.3; GC-3.4; GC-3.5; GC-3.6 | GC-4.1; GC-4.2; GC-4.3; GC-4.4; GC-4.5; GC-4.6 | GC-5.1; GC-5.2; CC-5.3; GC-5.4; GC-5.5; CC-5.6 | GC-6.1; GC-6.2; GC-6.3; GC-6.4 | GC-7.1; GC-7.2 |
| FTD.01 | Professional Command of English Language | | | | GC-4.1; GC-4.2; GC-4.3; GC-4.4; GC-4.5; GC-4.6 | GC-5.1; GC-5.2; CC-5.3; GC-5.4; GC-5.5; CC-5.6 | | |

| Code | Name of Discipline/Modules, building competencies in students | GENERIC PROFESSIONAL COMPETENCIES | | | | | |
|-----------------|---|--|--|--------------------------------------|---|--|---|
| | | GPC-1 Capability to solve professional tasks based on knowledge (at | GPC-2 Capability to apply modern techniques | GPC-3. Capable to make reasonable | GPC-4. Capability to manage project and process activity | GPC-5. Capability to generalize and | GPC-6. Capability to evaluate critically the possibilities |
| Block 1. | Disciplines (Modules) | | | | | | |
| B1.0 | Mandatory Part | | | | | | |
| B1.0.01 | Basic Component | | | | | | |
| B1.0.01.01 | Managerial Economics | GPC-1.1;GPC-1.2; GPC-1.3; GPC-1.4; | | | | | GPC-6.1; GPC-6.2; GPC-6.3. |
| B1.0.01.02 | Methodology of Management Problems Research | | GPC-2.1;GPC-2.2; GPC-2.3. | | | | |
| B1.0.01.03 | Management Organization Theory | GPC-1.1;GPC-1.2; GPC-1.3; GPC-1.4; | | GPC-3.1;GPC-3.2; OPK-3.3; OPK-3.4; | | GPC-5.1; GPC-5.2; GPC-5.3; GPC-5.4; | |
| B1.0.01.04 | Modern Strategic Analysis | GPC-1.1;GPC-1.2; GPC-1.3; GPC-1.4; | GPC-2.1;GPC-2.2; GPC-2.3. | GPC-3.1;GPC-3.2; OPK-3.3; OPK-3.4; | | | |
| B1.0.01.05 | Professional Command of Foreign Language | | | | | | |
| B1.0.02 | Elective Component | | | | | | |
| B1.0.02.01 | Enterprise Finance and Investment in Engineering Management | GPC-1.1;GPC-1.2; GPC-1.3; GPC-1.4; | GPC-2.1;GPC-2.2; GPC-2.3. | | | | GPC-6.1; GPC-6.2; GPC-6.3. |
| B1.0.02.02 | Innovation Management | | | GPC-3.1;GPC-3.2; OPK-3.3; OPK-3.4; | | | |
| B1.0.02.03 | Organization and Production Management | | | GPC-3.1;GPC-3.2; OPK-3.3; OPK-3.4; | | | |

| Code | Name of Discipline/Modules, building competencies in students | GENERIC PROFESSIONAL COMPETENCIES | | | | | |
|---------------|---|--|--|--------------------------------------|---|--|---|
| | | GPC-1 Capability to solve professional tasks based on knowledge (at | GPC-2 Capability to apply modern techniques | GPC-3. Capable to make reasonable | GPC-4. Capability to manage project and process activity | GPC-5. Capability to generalize and | GPC-6. Capability to evaluate critically the possibilities |
| B1.0.02.04 | Strategic Management in Industrial Companies | GPC-1.1;GPC-1.2; GPC-1.3; GPC-1.4; | | | | | |
| B1.0.02.05 | Marketing and Competitiveness Management | | | GPC-3.1;GPC-3.2; OPK-3.3; OPK-3.4; | | | |
| B1.0.02.06 | Accounting in Engineering Management | | GPC-2.1;GPC-2.2; GPC-2.3. | | GPC-4.1;GPC-4.2; GPC-4.3; GPC-4.4; | | |
| B1.0.02.07 | Commercial Law and Legal Engineering | GPC-1.1;GPC-1.2; GPC-1.3; GPC-1.4; | | | | | |
| B1.0.02.08 | Evaluation of Labor Efficiency and Personnel Management | | | | | GPC-5.1; GPC-5.2; GPC-5.3; GPC-5.4; | |
| B1.0.02.09 | Agile Project Management | | | | | | GPC-6.1; GPC-6.2; GPC-6.3. |
| B1.V.DV.01 | Elective Disciplines (Modules) 1 (DV.1) | | | | | | |
| B1.V.DV.01.01 | Engineering Innovations | | | | | | |
| B1.V.DV.01.02 | Economics and Management of Energy & Environment | | | | | | |
| B1.V.DV.02 | Elective Disciplines (Modules) 2 (DV.2) | | | | | | |

| Code | Name of Discipline/Modules, building competencies in students | GENERIC PROFESSIONAL COMPETENCIES | | | | | |
|---------------|---|--|--|--------------------------------------|---|--|---|
| | | GPC-1 Capability to solve professional tasks based on knowledge (at | GPC-2 Capability to apply modern techniques | GPC-3. Capable to make reasonable | GPC-4. Capability to manage project and process activity | GPC-5. Capability to generalize and | GPC-6. Capability to evaluate critically the possibilities |
| B1.V.DV.02.01 | Business Process Management | | | | | | |
| B1.V.DV.02.02 | Cloud Technologies in Enterprise Management | | | | | | |
| B1.V.DV.03 | Elective Disciplines (Modules) 3 (DV.3) | | | | | | |
| B1.V.DV.03.01 | Lean Manufacturing | | | | | | |
| B1.V.DV.03.02 | Data Mining and Decision Making | | | | | | |
| B1.V.DV.04 | Elective Disciplines (Modules) 4 (DV.4) | | | | | | |
| B1.V.DV.04.01 | Standardization and Quality Management | | | | | | |
| B1.V.DV.04.02 | Industrial Ecology | | | | | | |
| B1.V.DV.05 | Elective Disciplines (Modules) 5 (DV.5) | | | | | | |
| B1.V.DV.05.01 | Fundamentals of Logistics and Supply Chains | | | | | | |
| B1.V.DV.05. | Enterprise Management Information | | | | | | |

| | | | | | | | |
|---------|---------------------------|--|--|--|--|--|--|
| 02 | | | | | | | |
| B2.0.01 | Basic Component | | | | | | |
| B2.0.02 | Elective Component | | | | | | |

| Code | Name of Discipline/Modules, building competencies in students | GENERIC PROFESSIONAL COMPETENCIES | | | | | |
|----------------|---|--|--|--------------------------------------|---|--|---|
| | | GPC-1 Capability to solve professional tasks based on knowledge (at | GPC-2 Capability to apply modern techniques | GPC-3. Capable to make reasonable | GPC-4. Capability to manage project and process activity | GPC-5. Capability to generalize and | GPC-6. Capability to evaluate critically the possibilities |
| B2.0.02.01(N) | Master's Degree R&D | GPC-1.1;GPC-1.2; GPC-1.3; | | | | GPC-5.1; GPC-5.2; GPC-5.3; GPC-5.4; | |
| B2.0.02.02(Pd) | Pre-graduation Practice | GPC-1.4; | GPC-2.1;GPC-2.2; GPC-2.3. | GPC-3.1;GPC-3.2; GPC-3.3; | GPC-4.1;GPC-4.2; GPC-4.3; | GPC-5.1; GPC-5.2; GPC-5.3; | GPC-6.1; GPC-6.2; GPC-6.3. |
| B3.01 | Interdisciplinary Examination | GPC-1.1;GPC-1.2; GPC-1.3; | GPC-2.1;GPC-2.2; GPC-2.3. | GPC-3.4; | GPC-4.4; | GPC-5.4; | GPC-6.1; GPC-6.2; GPC-6.3. |
| B3.02 | Preparing for defense and Defense of the degree thesis | GPC-1.4; | GPC-2.1;GPC-2.2; GPC-2.3. | GPC-3.1;GPC-3.2; OPK-3.3; OPK-3.4; | GPC-4.1;GPC-4.2; GPC-4.3; | GPC-5.1; GPC-5.2; GPC-5.3; GPC-5.4; | GPC-6.1; GPC-6.2; GPC-6.3. |
| FTD.01 | Professional Command of English Language | | | | | | |

| Code | Name of Discipline/Modules, building competencies in students | PC-1 Capability to manage the efficiency of an investment project | PC-2 Capability to assess business opportunities of an organization necessary for strategic changes in | PC-3 Capability to manage organizations, departments, groups (teams) of employees, projects and |
|----------------|---|--|---|--|
| | | Block 1. | Disciplines (Modules) | |
| B1.O | Mandatory Part | | | |
| B1.0.01 | Basic Component | | | |
| B1.0.01.01 | Managerial Economics | | | |

| Code | Name of Discipline/Modules, building competencies in students | PC-1 Capability to manage the efficiency of an investment project | PC-2 Capability to assess business opportunities of an organization necessary for strategic changes in | PC-3 Capability to manage organizations, departments, groups (teams) of employees, projects and |
|---------------|---|---|--|---|
| B1.0.01.02 | Methodology of Management Problems Research | | | |
| B1.0.01.03 | Management Organization Theory | | | |
| B1.0.01.04 | Modern Strategic Analysis | | | |
| B1.0.01.05 | Professional Command of Foreign Language | | | |
| B1.0.02 | Elective Component | | | |
| B1.0.02.01 | Enterprise Finance and Investment in Engineering Management | | PC-2.2 | |
| B1.0.02.02 | Innovation Management | PC-1.4 | PC-2.1 | |
| B1.0.02.03 | Organization and Production Management | | | PC-3.1; |
| B1.0.02.04 | Strategic Management in Industrial Companies | | PC-2.1 | |
| B1.0.02.05 | Marketing and Competitiveness Management | | | PC-3.1; |
| B1.0.02.06 | Accounting in Engineering Management | PC-1.2 | | |
| B1.0.02.07 | Commercial Law and Legal Engineering | | | PC-3.1; |
| B1.0.02.08 | Evaluation of Labor Efficiency and Personnel Management | PC-1.2 | | |
| B1.0.02.09 | Agile Project Management | PC-1.1; | | |
| B1.V.DV.01 | Elective Disciplines (Modules) 1 (DV.1) | | | |
| B1.V.DV.01.01 | Engineering Innovations | PC-1.1; PC-1.4; PC-1.6 | | |
| B1.V.DV.01.02 | Economics and Management of Energy & Environment | PC-1.6 | | |
| B1.V.DV.02 | Elective Disciplines (Modules) 2 (DV.2) | | | |

| Code | Name of Discipline/Modules, building competencies in students | PC-1 Capability to manage the efficiency of an investment project | PC-2 Capability to assess business opportunities of an organization necessary for strategic changes in | PC-3 Capability to manage organizations, departments, groups (teams) of employees, projects and |
|----------------|---|---|--|---|
| B1.V.DV.02.01 | Business Process Management | | | PC-3.1; |
| B1.V.DV.02.02 | Cloud Technologies in Enterprise Management | | | PC-3.1; |
| B1.V.DV.03 | Elective Disciplines (Modules) 3 (DV.3) | | | |
| B1.V.DV.03.01 | Lean Manufacturing | PC-1.6 | | |
| B1.V.DV.03.02 | Data Mining and Decision Making | PC-1.6 | | |
| B1.V.DV.04 | Elective Disciplines (Modules) 4 (DV.4) | | | |
| B1.V.DV.04.01 | Standardization and Quality Management | PC-1.1 | | |
| B1.V.DV.04.02 | Industrial Ecology | PC-1.1 | | |
| B1.V.DV.05 | Elective Disciplines (Modules) 5 (DV.5) | | | |
| B1.V.DV.05.01 | Fundamentals of Logistics and Supply Chain Management | | | PC-3.1; |
| B1.V.DV.05.02 | Enterprise Management Information Management | | | PC-3.1; |
| B2.0.01 | Basic Component | | | |
| B2.0.02 | Elective Component | | | |
| B2.0.02.01(N) | Master's Degree R&D | PC-1.1 | PC-2.1 | PC-3.1; |
| B2.0.02.02(Pd) | Pre-graduation Practice | PC-1.1; PC-1.2; PC-1.3; PC-1.4; PC-1.6 | PC-2.1; PC-2.2; PC-2.3 | PC-3.1; |
| B3.01 | Interdisciplinary Examination | PC-1.1; PC-1.2; PC-1.3; PC-1.4; PC-1.5; PC-1.6 | | PC-3.1; PC-3.2 |
| B3.02 | Preparing for defense and Defense of the graduation qualifying paper (Degree Thesis). | PC-1.1; PC-1.2; PC-1.3; PC-1.4; PC-1.5; PC-1.6 | | PC-3.1; PC-3.2 |
| FTD.01 | Professional Command of English Language | | | |