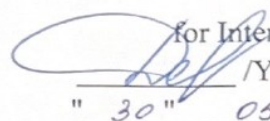


Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Максимов Алексей Борисович
Должность: директор департамента по образовательной политике
Дата подписания: 31.08.2023 14:56:36
Уникальный программный ключ:
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**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN
FEDERATION**

Federal State Autonomous Educational Institution of Higher Education
"Moscow Polytechnic University"
(Moscow Poly)

APPROVE
Vice-President
for International Affairs


/Yu.D. Davydova/
" 30 " 05 2022

Dean,
Faculty of Economics and
Management


/A.V. Nazarenko/
" 30 " 05 2022

WORKING PROGRAM OF THE DISCIPLINE

"Fundamentals of technological entrepreneurship"

Field of study
38.03.02 Management

Educational program (profile)
"Business Process Management"

Qualification (degree)
Bachelor

Form of study
Part-time

Moscow 2022

1. The goals of mastering the discipline.

The main goals of mastering the discipline "Fundamentals of technological entrepreneurship" include:

acquisition of a set of theoretical knowledge, skills and practical skills necessary to solve the main tasks that arise in the implementation of innovative projects, including in high-tech areas, as well as training in interaction to solve specific problems with specialists from other fields of activity (from the field of financial management, specialists in the field of specific technological solutions, market analysts, etc.)

Based on the goals, in the process of studying the discipline, the following tasks are solved:

- study of the theoretical foundations of the impact of the state on innovation;
- acquiring the skills to analyze innovation processes based on the generalization of world experience and taking into account Russian reality;
- development of skills for making and implementing innovative managerial decisions.

2. The place of the discipline in the structure of the bachelor's program

The discipline "Fundamentals of technological entrepreneurship" refers to a part of the disciplines formed by the participants in educational relations, (B.1.2.19.2) of the direction of training bachelors 38.03.02 "Management".

"Fundamentals of Technological Entrepreneurship" is interconnected logically and content-methodically with the following disciplines and practices of the EP:

"Introduction to project activities", "Project management", "Project activities", Practice for obtaining primary professional skills and abilities; Undergraduate practice.

3. The list of planned learning outcomes for the discipline (module), correlated with the planned results of mastering the educational program.

As a result of mastering the discipline (module), students develop the following competencies and the following learning outcomes should be achieved as a stage in the formation of the relevant competencies:

| Competency code | Competence (code and name) | Competence indicators (code and name) | Learning Outcomes |
|------------------------|---|---|---|
| UK-2 | UK-2. Able to determine the range of tasks within the set goal and choose the best ways to solve them, based on current legal regulations, available resources and restrictions | IUK-2.1. Formulates a set of tasks within the framework of the project goal, the solution of which ensures its achievement IUK-2.2. Identifies the links between the tasks set, the main components of the project and the expected results of its implementation IUK-2.3. Selects the best methods for planning, distributing areas of responsibility, solving problems, analyzing results, taking into account current legal regulations, available conditions, resources and restrictions, and opportunities for use | <p>know: sources and resources of innovative activity; fundamentals of strategic management of innovation activities;</p> <p>be able to: navigate the system of legislation and regulatory legal acts regulating the sphere of innovation activity</p> <p>own: effective project management methods, technology and product innovation program, or organizational change program</p> |

4. Structure and content of the discipline.

On a part-time basis

The total labor intensity of the discipline is 2 credit units, i.e. 72 academic hours (of which 54 hours are independent work of students).

Sections of the discipline "Fundamentals of technological entrepreneurship" are studied in the first year.

Fourth semester: seminars - 18 hours, form of control - test.

The structure and content of the discipline "Fundamentals of technological entrepreneurship" in terms of terms and types of work are reflected in the appendix.

The content of the sections of the discipline

Topic 1. Subject and content of the discipline. Basic concepts.

Technological entrepreneurship. Basic concepts and definitions. Definition of technological entrepreneurship and entrepreneur. Innovative orientation of entrepreneurial activity. Forms and types of entrepreneurial activity. Characteristics and stages of the entrepreneurial process.

Topic 2. Development of a strategy for a high-tech enterprise.

Strategic planning of the enterprise. New business entry strategy. Development of targeted integrated programs as a form of strategic planning. Methodology of annual planning of social and economic development of the enterprise. Formation of a bank of ideas for the development of the enterprise. Features of the organization of cooperation in the field of high technologies. International business relations. SWOT analysis

Topic 3. Technology transfer and protection of intellectual property. The knowledge economy and the growing role of innovation diffusion. Transfer of innovations as a market regulator of diffuse processes. Knowledge management as an element of innovative activity in an enterprise. Forms of innovation transfer. Intellectual property protection as the basis for the security of a technology startup. Protection of innovations as objects of industrial property. Confidentiality Memorandum. Terms of confidentiality of transmitted information. The role of patent attorneys. The specificity of the protection of rights to individual objects of industrial property. Legal protection of confidential information, know-how as its type. Regulation of the use of service inventions

Topic 4. Development of a business plan.

Development of a business plan. Risks. venture capital. Economic usefulness of a business plan. Methods for evaluating the economic efficiency of innovative projects. Time factor in economic measurements. Discounting cash flows. Dynamic performance evaluation indicators.

Topic 5. Financing of scientific and technical projects. Financing of innovative projects.

State sources of funding. Extrabudgetary sources of financing. Non-state sources of financing. Commercial sources of funding. Venture funding sources. Financing by the State Fund for Assistance to the Development of Small Forms of Enterprises in the Scientific and Technical Sphere. Financing of innovation activities at the regional level. Financing and support of innovation activities by foreign structures. Funding for non-commercial projects.

Topic 6. Organization and management of innovation activities Commercialization of the results of scientific and technical activities: essence and features at different stages of the life cycle. The essence of diffuse processes and their main directions. Transfer of the results of scientific and technical activities at the level of organizations and states. Protection of intellectual property.

Topic 7 Intra- and inter-firm organizational forms of innovation. Alliances in the innovation sphere. Interfirm scientific and technical cooperation. Business incubators. Scientific and technological parks. Technopolises (science cities). Global innovation processes and features of their organization.

Topic 8 Designing business processes for innovation. Organization of monitoring of the innovation process. Types of tools used at various stages of the life cycle of an innovative project. Unified information model of the project and CALS-technologies. Instrumental tools for planning and monitoring the progress of an innovative project. Tools for financial analysis and resource management of an innovative project.

Topic 9. Management of innovative projects and programs

Management of high-tech industries as the main technology for implementing innovations. The concept of the project. Development of an innovative project and

ensuring its implementation. The project as an object of control. Planning and project management based on the process approach. Classification of projects. The structure of the project and its environment. Features of innovative projects. Project life cycle. The main stages and stages of the project. Project implementation team. The key role of the project manager. Interaction between leader and team. Motivation of project participants.

5. Educational technologies.

The methodology for teaching the discipline "Fundamentals of Technological Entrepreneurship" and the implementation of a competency-based approach in the presentation and perception of the material provides for the use of the following active and interactive forms of conducting classroom classes in combination with extracurricular work in order to form and develop the professional skills of students:

- discussion and defense of reports on the discipline;
- Oral interviews.

6. Evaluation tools for current monitoring of progress, intermediate certification based on the results of mastering the discipline and educational and methodological support for students' independent work.

In the learning process, the following assessment forms of students' independent work, assessment tools for monitoring progress and intermediate assessments are used: reports and oral surveys

Current control is carried out at seminars.

Samples of control questions and tasks for conducting current control, questions for the exam are given in the appendix. When performing current control, it is possible to use test material. Samples of control questions and tasks for conducting current control

are given in the appendix. When implementing the undergraduate program, the organization has the right to use e-learning and distance learning technologies. All materials are placed in the LMS of the Moscow Poly (<https://online.mospolytech.ru/>).

When teaching people with disabilities, e-learning and distance learning technologies should provide for the possibility of receiving and transmitting information in forms accessible to them.

The content of independent work of students

Work with recommended literature supporting theoretical and practical material, preparation of reports.

Current control is carried out in the following forms:

report: the topic of the report is selected from the list of proposed topics (see above). The report is an oral communication of 10-15 minutes, accompanied by a presentation and handouts for listeners, which, in addition to the basic concepts, must include a list of sources used. The handout becomes part of the student's teaching material on the specified topic;

- oral questioning.

6.1. Fund of assessment tools for conducting intermediate certification of students in the discipline (module).

6.1.1. A list of competencies indicating the stages of their formation in the process of mastering the educational program.

As a result of mastering the discipline (module), the following competencies are formed:

| Competency code | As a result of mastering the educational program, the student must have |
|------------------------|--|
| UK-2 | Able to determine the range of tasks within the set goal and choose the best ways to solve them, based on current legal regulations, available resources and |

| | |
|--|--------------|
| | restrictions |
|--|--------------|

In the process of mastering the educational program, these competencies, including their individual components, are formed in stages during the development of disciplines (modules), practices by students in accordance with the curriculum and calendar schedule of the educational process.

6.1.2. Description of indicators and criteria for assessing competencies formed on the basis of the results of mastering the discipline (module), description of assessment scales

An indicator of competency assessment at various stages of their formation is the achievement by students of the planned learning outcomes in the discipline (module).

| UK-10 Capable of making informed economic decisions in various areas of life | | | | |
|--|---|---|--|---|
| Index | Evaluation criteria | | | |
| | 2 | 3 | four | 5 |
| know: sources and resources of innovative activity; fundamentals of strategic management of innovation activities; | The student demonstrates the complete absence or insufficient correspondence of the following knowledge: sources and resources of innovative activity; fundamentals of strategic management of innovation activities; | The student demonstrates incomplete compliance with the following knowledge: sources and resources of innovation; fundamentals of strategic management of innovation activities; Significant errors, lack of knowledge is manifested, for a number of indicators, the student experiences significant difficulties in operating knowledge when transferring it to new situations. | The student demonstrates partial compliance with the following knowledge: sources and resources of innovation; fundamentals of strategic management of innovation activities; , but minor errors, inaccuracies, difficulties in analytical operations are allowed. | The student demonstrates full compliance with the following knowledge: sources and resources of innovation; fundamentals of strategic management of innovation activities; freely operates with acquired knowledge. |
| be able to: navigate the system | The student does not know how or | The student demonstrates | The student demonstrates partial | The student demonstrates full |

| | | | | |
|--|--|--|--|---|
| of legislation and regulatory legal acts regulating the sphere of innovation activity | insufficiently knows how to navigate the system of legislation and regulatory legal acts regulating the field of innovation | incomplete compliance with the following skills: navigate the system of legislation and regulations governing the field of innovation Significant mistakes are made, lack of skills is manifested, for a number of indicators, the student experiences significant difficulties in operating with skills when transferring them to new situations. | compliance with the following skills: navigate the system of legislation and regulations governing the field of innovation Skills are mastered, but minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations are allowed. | compliance with the following skills: navigate the system of legislation and regulations governing the field of innovation Freely operates with acquired skills, applies them in situations of increased complexity. |
| own: effective project management methods, technology and product innovation program, or organizational change program | The student does not or lacks effective project management, a technology and product innovation program, or an organizational change program | The student does not fully master the Methods of effective project management, the program for the introduction of technological and product innovations or the program of organizational changes, significant mistakes are made, there is a lack of skills in a number of indicators, the student has significant difficulty applying skills in new situations. | The student partially owns the Methods of effective project management, the program for the introduction of technological and product innovations or the program of organizational changes, the skills are mastered, but minor errors, inaccuracies, difficulties are allowed in analytical operations, transferring skills to new, non-standard situations. | The student is fully proficient in the Methods of effective project management, the program for the introduction of technological and product innovations or the program of organizational changes, freely applies the acquired skills in situations of increased complexity. |

Scales for assessing the results of intermediate certification and their description:

Form of intermediate attestation: test.

Intermediate attestation of students in the form of a test is carried out based on the results of all types of educational work provided for by the curriculum for a given discipline (module), while taking into account the results of current monitoring of progress during the semester. The assessment of the degree of achievement by students of the planned learning outcomes in the discipline (module) is carried out by the teacher

conducting classes in the discipline (module) by the method of expert assessment. Based on the results of the intermediate certification for the discipline (module), the grade "passed" or "failed" is given.

Only students who have completed all types of educational work provided for by the work program for the discipline are allowed to intermediate certification (report and oral questioning)

| Evaluation scale | Evaluation criteria |
|-------------------------|--|
| Passed | The student demonstrates the correspondence of skills and abilities to the indicators given in the tables, operates with the acquired skills, skills. In this case, minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations can be made. |
| Not credited | The student demonstrates incomplete correspondence of skills and abilities to those given in the tables of indicators, significant mistakes are made, the lack of skills and abilities is manifested in a number of indicators, the student experiences significant difficulties in operating skills when transferring them to new situations. |

7. Educational and methodological support of discipline.

a) basic literature:

1. Zub, A. T. Project management: textbook and workshop for universities / A. T. Zub. - Moscow: Yurayt Publishing House, 2022. - 422 p. - (Higher education). - ISBN 978-5-534-00725-1. — Text: electronic // Educational platform Urayt [website]. - url:<https://urait.ru/bcode/489197>

2. Polyakov, N. A. Management of innovative projects: textbook and workshop for universities / N. A. Polyakov, O. V. Motovilov, N. V. Lukashov. — 2nd ed., corrected. and additional - Moscow: Yurayt Publishing House, 2022. - 384 p. - (Higher education). — ISBN 978-5-534-15534-1. — Text: electronic // Educational platform Urayt [website]. - url:<https://urait.ru/bcode/508098>

b) additional literature:

one. Spiridonova, E. A. Creation of startups: a textbook for universities / E. A. Spiridonova. - Moscow: Yurayt Publishing House, 2022. - 193 p. - (Higher education). - ISBN 978-5-534-14065-1. — Text: electronic // Educational platform Urayt [website]. - url:<https://urait.ru/bcode/496848>

2. Theoretical innovation: textbook and workshop for universities / I. A. Brusakova [and others]; edited by I. A. Brusakova. - Moscow: Yurayt Publishing House, 2022. - 333 p. - (Higher education). - ISBN 978-5-534-04909-1. — Text: electronic // Educational platform Urayt [website]. - url:<https://urait.ru/bcode/492977>

3. Khotyashева, O. M. Innovative management: textbook and workshop for universities / O. M. Khotyashева, M. A. Slesarev. - 3rd ed., revised. and additional - Moscow: Yurayt Publishing House, 2022. - 326 p. - (Higher education). - ISBN 978-5-534-00347-5. — Text: electronic // Educational platform Urayt [website]. - url:<https://urait.ru/bcode/489019>

c) software and Internet resources:

Office applications, Microsoft Office 2013 (or lower) -Microsoft Open License - License No. 61984042 Agreement No. 08-05/13 dated 06/03/2013 Transfer and Acceptance Certificate No. 961, Transfer and Acceptance Certificate No. 385

Operating system, Windows 7 (or lower) - Microsoft Open License –License# 61984214 61984216 61984217 61984219 61984213 61984218 61984215

- <http://www.gov.ru> Server of state authorities of the Russian Federation.
- <http://www.mos.ru> Official server of the Government of Moscow.
- <http://www.garant.ru> GUARANTOR Legislation with comments.
- <http://www.gks.ru> Federal State Statistics Service.
- <http://www.rg.ru> Russian newspaper.
- <http://www.rbc.ru> RBC (RosBusinessConsulting).
- <http://www.businesspress.ru> Business press.

- <http://uisrussia.msu.ru> University Information System of Russia.
- <http://www.mevriz.ru> Journal "Management in Russia and abroad"
- <http://minpromtorg.gov.ru> Ministry of Industry and Trade of the Russian Federation.

eight. Logistics support of discipline.

Audience for lectures and seminars of the general fund. Training tables with benches, classroom board, portable multimedia complex (projector, projection screen, laptop). Teacher's workplace: table, chair.

Office applications, Microsoft Office 2013 (or lower) -Microsoft Open License - License No. 61984042 Agreement No. 08-05/13 dated 06/03/2013 Transfer and Acceptance Certificate No. 961, Transfer and Acceptance Certificate No. 385

Operating system, Windows 7 (or lower) - Microsoft Open License - License No. 61984214, 61984216, 61984217, 61984219, 61984213, 61984218, 61984215; Agreement No. 08-05/13 dated 06/03/2013 Transfer and Acceptance Certificate No. 961

9. Guidelines for students when working on lecture notes during the lecture

Lecture - a systematic, consistent, monologue presentation by the teacher of educational material, as a rule, of a theoretical nature. When preparing a lecture, the teacher is guided by the working program of the discipline. In the course of lectures, it is recommended to take notes, which will later allow you to recall the studied educational material, supplement the content during independent work with literature, and prepare for the exam.

You should also pay attention to categories, formulations that reveal the content of certain phenomena and processes, scientific conclusions and practical recommendations, positive experience in oratory. It is advisable to leave fields in the working notes on which to make notes from the recommended literature, supplementing the material of the

lecture heard, as well as emphasizing the particular importance of certain theoretical positions.

Lecture conclusions summarize the teacher's reflections on educational issues. The teacher provides a list of used and recommended sources for studying a particular topic. At the end of the lecture, students have the opportunity to ask questions to the teacher on the topic of the lecture. When lecturing on the discipline, electronic multimedia presentations can be used.

Guidelines for students when working at the seminar

Seminars are implemented in accordance with the working curriculum with consistent study of the topics of the discipline. In preparation for the seminars, the student is recommended to study the basic literature, get acquainted with additional literature, new publications in periodicals: magazines, newspapers, etc. In this case, the recommendations of the teacher and the requirements of the curriculum should be taken into account. It is also recommended to refine your lecture notes by making appropriate entries in it from the literature recommended by the teacher and provided by the curriculum. Abstracts should be prepared for presentations on all educational issues submitted to the seminar.

Since the student's activity in seminars is the subject of monitoring his progress in mastering the course, preparation for seminars requires a responsible attitude. In interactive classes, students should be active.

Guidelines for students on the organization of independent work

Independent work of students is aimed at independent study of a separate topic of the academic discipline. Independent work is mandatory for each student, its volume is determined by the curriculum. During independent work, the student interacts with the recommended materials with the participation of the teacher in the form of consultations. To perform independent work, methodological support is provided. The electronic library system (electronic library) of the university provides the possibility of individual access for each student from any point where there is access to the Internet.

10. Guidelines for the teacher

(Guidelines for making presentations)

A presentation (from the English word - presentation) is a set of color slide pictures on a specific topic, which is stored in a special format file with the PP extension. The term "presentation" (sometimes called "slide film") is associated primarily with the information and advertising functions of pictures that are designed for a certain category of viewers (users).

Multimedia computer presentation is:

- dynamic synthesis of text, image, sound;
- the most modern software interface technologies;
- interactive contact of the speaker with the demonstration material;
- mobility and compactness of information carriers and equipment;
- ability to update, supplement and adapt information;
- low cost.

Rules for the design of computer presentations

General Design Rules

Many designers argue that there are no laws and rules in design. There are tips, tricks, tips. Design, like any kind of creativity, art, like any way of some people to communicate with others, like language, like thought, will bypass any rules and laws.

However, there are certain recommendations that should be followed, at least for novice designers, until they feel the strength and confidence to create their own rules and recommendations.

Font design rules:

- Serif fonts are easier to read than sans-serif fonts;
- Capital letters are not recommended for body text.
- Font contrast can be created through: font size, font weight, style, shape, direction, and color.
- Rules for choosing colors.

- The color scheme should consist of no more than two or three colors.
- There are incompatible color combinations.
- Black color has a negative (gloomy) connotation.
- White text on a black background is hard to read (inversion is hard to read).

Presentation design guidelines

In order for the presentation to be well perceived by the audience and not cause negative emotions (subconscious or completely conscious), it is necessary to follow the rules for its design.

The presentation involves a combination of information of various types: text, graphics, musical and sound effects, animation and video clips. Therefore, it is necessary to take into account the specifics of combining fragments of information of various types. In addition, the design and demonstration of each of the listed types of information is also subject to certain rules. So, for example, for textual information, the choice of font is important, for graphic information - brightness and color saturation, for their best joint perception, optimal relative position on the slide is necessary.

Consider recommendations for the design and presentation of various types of materials on the screen.

Formatting text information:

- font size: 24-54 pt (headline), 18-36 pt (plain text);
- font color and background color should contrast (the text should be well read), but not hurt the eyes;
- font type: smooth sans-serif font for body text (Arial, Tahoma, Verdana), decorative font can be used for heading if it is legible;
- italics, underlining, bold, capital letters are recommended to be used only for semantic highlighting of a text fragment.

Formatting graphic information:

- drawings, photographs, diagrams are designed to supplement textual information or convey it in a more visual form;
- it is desirable to avoid drawings in the presentation that do not carry a semantic load if they are not part of the style design;

- the color of graphic images should not contrast sharply with the overall style of the slide;
- illustrations are recommended to be accompanied by explanatory text;
- if a graphic image is used as a background, then the text on this background should be well readable.

The content and location of information blocks on the slide:

- there should not be too many information blocks (3-6);
- the recommended size of one information block is no more than 1/2 of the slide size;
- it is desirable to have on the page blocks with different types of information (text, graphs, diagrams, tables, figures) that complement each other;
- keywords in the information block must be highlighted;
- information blocks should be placed horizontally, blocks related in meaning - from left to right;
- the most important information should be placed in the center of the slide;
- the logic of presenting information on slides and in the presentation should correspond to the logic of its presentation.

In addition to the correct arrangement of text blocks, one must not forget about their content - the text. In no case should it contain spelling errors. You should also take into account the general rules for formatting the text.

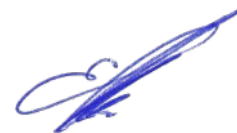
After creating a presentation and its design, you need to rehearse its presentation and your performance, check how the presentation will look like as a whole (on a computer screen or projection screen), how quickly and adequately it is perceived from different audience locations, under different lighting conditions, noise accompaniment, in an environment as close as possible to the real conditions of the performance.

The work program was compiled on the basis of the Federal State Educational Standard of Higher Education in the direction of training bachelors on March 38, 02 "Management", approved by order of the Ministry of Education and Science of the Russian Federation of August 12, 2020 No. 970 (Registered in the Ministry of Justice of Russia on August 25, 2020 No. 59449).

The program was made by:

Head of the department "Management"

Candidate of Economics, Associate Professor / Alenina E.E. /



Candidate of Economics, Associate Professor of the Department of Management
/Kostromin P.A./



The program was approved at a meeting of the department "Management"

August 29, 2022, Protocol No. 1

Head of the department "Management"

k. e. Sc., Associate Professor / Alenina E.E. /



**The structure and content of the discipline "Fundamentals of technological entrepreneurship" in the direction of preparation
38.03.02 "Management" (bachelor) Educational program "Business Process Management" (part-time)**

| n / n | Chapter | Semester | Types of educational work, including independent student work, and labor intensity in hours | | | | | Types of independent work students | | | | | Forms of attestati on | |
|------------------|---|----------|--|---------|-----|---------|---------|---------------------------------------|------|---|----|----|--------------------------------|---|
| | | | L | F/ N | Lab | SR S | DA C | K.R. | K.P. | T | DC | UO | E | Z |
| | Second course | | | | | | | | | | | | | |
| o n e | Topic 1. Subject and content of the discipline. Basic concepts | fo ur | o n e | | 2 | | 6 | | | | | + | + | |
| 2 | Topic 2. Development of a strategy for a high-tech enterprise | fo ur | 2 | | 2 | | 6 | | | | | + | + | |
| 3 | Topic 3. Technology transfer and protection of intellectual property | fo ur | 3 | | 2 | | 6 | | | | | + | + | |
| f o u r | Topic 4. Development of a business plan | fo ur | f o u r | | 2 | | 6 | | | | | + | + | |
| 5 | Topic 5. Financing of scientific and technical projects. Financing of innovative projects | fo ur | 5 | | 2 | | 6 | | | | | + | + | |
| 6 | Topic 6. Organization and management of innovation activities | fo ur | 6 | | 2 | | 6 | | | | | + | + | |
| 7 | Topic 7 Intra- and inter-firm organizational forms of innovation | fo ur | 7 | | 2 | | 6 | | | | | + | + | |

| | | | | | | | | | | | | | | |
|----------------------------|---|----------|-----------------------|------------------|--|----|--|--|--|--|-----|-----|--|---|
| ei g h t 9 | Topic 8 Designing business processes for innovation | fo ur | e i g h t | 2 | | 6 | | | | | + | + | | |
| | Topic 9. Management of innovative projects and programs | fo ur | 9 | 2 | | 6 | | | | | + | + | | |
| | Appraisal Form | | | | | | | | | | one | one | | Z |
| | Total hours per discipline in the 4th semester | | | eig hte en | | 54 | | | | | | | | |

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER EDUCATION

**"MOSCOW POLYTECHNIC UNIVERSITY"
(MOSCOW POLYTECH)**

Direction of training: 38.03.02 "Management"

EP (Educational Program): "Business Process Management"

Form of study: full-time, part-time

Type of professional activity: organizational and managerial, information and analytical,
entrepreneurial

Department: "Management"

VALUATION FUND

BY DISCIPLINE

Technology Entrepreneurship

Composition: 1. Passport of the fund of appraisal funds

2. Description of evaluation tools:
questions for the test, topics of reports, topics of oral survey.

Compiled by:

head of the department Candidate of Economics, Assoc. Alenina E.E.

Associate Professor, Ph.D. Kostromin P.A.

Moscow, 2022

Table 1

INDICATOR OF THE LEVEL OF FORMATION OF COMPETENCES

| Technology Entrepreneurship | | | | | | |
|---|---|---|--|-------------------------------------|------------------------|---|
| GEF VO 38.03.02 "Management" | | | | | | |
| In the process of mastering this discipline, the student forms and demonstrates the following competencies: | | | | | | |
| COMPETENCES | | | List of components | Competence formation technology | Assessment Tool Form** | Degrees of levels of development of competencies |
| INDEX | FORMULATION | Indicators | | | | |
| UK-2. | Able to determine the range of tasks within the set goal and choose the best ways to solve them, based on current legal regulations, available resources and restrictions | IUK-2.1. Formulates a set of tasks within the framework of the project goal, the solution of which ensures its achievement IUK-2.2. Identifies the links between the tasks set, the main components of the project and the expected results of its implementation IUK-2.3. Selects the best methods for planning, distributing areas of responsibility, solving problems, analyzing results, taking into account current legal regulations, available conditions, resources and restrictions, and opportunities for use | know: sources and resources of innovative activity; fundamentals of strategic management of innovation activities; be able to: navigate the system of legislation and regulatory legal acts regulating the sphere of innovation activity own: effective project management methods, technology and product innovation program, or organizational change program | lecture, independent work, seminars | UO, Z | A basic level of - is able to analyze, apply skills and functions of competence in training and prepared situations Enhanced level -able to analyze, apply the skills and functions of competence in practice and in non-standard situations |

For abbreviations of the forms of evaluation tools, see Annex 2 to the SPM

List of evaluation tools for the discipline Technological entrepreneurship

| OS number | Name of the evaluation tool | Brief description of the evaluation tool | Presentation of the evaluation tool in the FOS |
|-----------|--------------------------------|---|---|
| one | Oral interview interview, (UO) | A means of control, organized as a special conversation between a teacher and a student on topics related to the discipline being studied, and designed to clarify the amount of knowledge of the student in a particular section, topic, problem, etc. | Questions about topics / sections of the discipline |
| 2 | Report, message (DS) | Product independent work student, which is a public performance on the presentation of the results of the solution of a certain educational and practical, educational and research or scientificTopics | Topics of reports, messages |
| 3 | credit | Form of knowledge assessment. In higher education institutions are held during the session. | Questions for the test |

Questions for the test in the discipline "Fundamentals of technological entrepreneurship" formation of competenceUK-2

1. The concept of technological entrepreneurship
2. The concept and economic essence of innovation.
3. Classification of innovations.
4. Innovation (innovation) as an object of management.
5. Concepts of innovative development.
6. Influence of the technological order on the strategic choice of the development of the organization.
7. Goals, objectives, forms and methods of formation and implementation of the state innovation policy.
8. The concept of innovation infrastructure.

9. Goals and objectives of forecasting scientific and technological development.

10. Features of product, technological and modifying innovations

11. Intra- and inter-firm organizational forms of innovation

12. The essence and structure of the innovation process.

13. The main stages of the product life cycle and their characteristics.

14. Basic provisions of the concept of national innovation systems.

15. Commercialization of the results of scientific and technical activities: essence and features at different stages of the life cycle.

16. The main factors determining the competitiveness of products and technologies.

17. Innovative potential of the enterprise (organization) as the most important factor of competitiveness.

18. Strategies for innovative development of enterprises and approaches to their formation and implementation.

19. Methods and approaches to overcome resistance to innovation and conflict resolution.

20. Designing business processes for innovation.

formation of competenciesUK-2

21. Team building and leadership in the implementation of innovative projects and programs for innovative development of enterprises.

22. The concept of the project. Development of an innovative project and ensuring its implementation.

23. Features of the regulation of innovation processes at the macro and micro levels of management.

24. The concept and definition of an innovation program as an object of management.

25. State and international programs to support innovation.
26. Schemes of the organizational structure of project management.
27. Marketing of an innovative project.
28. Innovation as a specific product. Features of promotion of innovations in the market.
29. Scientific and technical expertise of innovative projects: directions, forms, methods, tools.
30. Uncertainty and risks in innovation.
31. Tools for financial analysis and resource management of an innovative project

List of topics of reports on the discipline "Fundamentals of technological entrepreneurship" (formation of competenciesUK-2)

1. Goals and objectives of state regulation of innovation.
2. Development of the system of state regulation of innovation activity in Russia.
3. Comparative analysis of systems of state regulation of innovation activity in Russia and the USA.
4. Comparative analysis of systems of state regulation of innovation activity in Russia and Japan.
5. Comparative analysis of systems of state regulation of innovation activity in Russia and Germany.
6. Comparative analysis of systems of state regulation of innovation activity in Russia and France.
7. Comparative analysis of systems of state regulation of innovation activity in Russia and Great Britain.
8. Organizational and economic aspects of the system of state regulation of innovation activity.

9. The main directions and measures to strengthen the influence of the state on the innovative activities of corporations.
10. Government support for corporate innovation programs and projects.
11. State stimulation of financial and credit organizations as investors of innovative enterprises.
12. Features of the system of state regulation of innovation activity in the constituent entities of the Russian Federation.
13. Branch features of management of innovative activity in the Russian Federation.
14. Innovative project - as an investment object.
15. Organizational structure of innovation project management.
16. External factors and conditions for the implementation of innovative activities.
17. Improving the methods of financing innovative projects.
18. Bank credit - as a source of financing for innovative projects.
19. Goals and objectives of the regional innovation policy.
20. Methods for stimulating active innovation in the city of Moscow.

Report Evaluation Criteria

| No. | Criterion | Grade | | | |
|------|---------------------------|---|--|--|---|
| | | ex. | choir. | satisfactory | unsatisfactory |
| 1 | Report Structure | The report contains semantic parts, balanced in volume | The report contains three semantic parts, unbalanced in volume | One of the semantic parts of the report is missing | The report does not trace the presence of semantic parts |
| 2 | Content of the report | The content reflects the essence of the problem under consideration and the main results obtained. | The content does not fully reflect the essence of the problem under consideration or the main results obtained. | The content does not fully reflect the essence of the problem under consideration and the main results obtained. | The content does not reflect the essence of the problem under consideration or the main results obtained. |
| 3 | Ownership of the material | The student fully owns the material presented, is oriented in the problem, freely answers questions | The student owns the material presented, is oriented in the problem, finds it difficult to answer some questions | The student is not fluent enough in the material presented, poorly oriented in the problem | The student does not own the material presented, poorly oriented in the problem |
| four | Relevance to the topic | The presented material is fully consistent with the stated topic. | The material presented contains elements that are not relevant to the topic. | The material presented contains a large number of elements that are not related to the topic. | The material presented is slightly relevant to the topic. |

Approximate topic for oral survey

Reveals the competence of UK-2

1. Definition of technological entrepreneurship and entrepreneur.
2. Innovative orientation of entrepreneurial activity. Forms and types of entrepreneurial activity.
3. Entrepreneurs without formation of a legal entity and legal entities as equal business entities.
4. Licensing of entrepreneurial activity: essence, purpose, tasks.
5. Characteristics and stages of the business process.
6. Selection criteria and methods for evaluating a business idea.
7. Criteria for choosing the form of activity.
8. Criteria for choosing a brand name.
9. Trademark (service mark).

10. Providing business with resources.
11. How to develop a business plan and define a strategy for developing your business.
12. Main factors of new business development (consumer, market, competition).
13. Strategic planning of the enterprise.
14. Strategy for entering a new business.
15. Development of targeted integrated programs as a form of strategic planning.
16. Methodology for annual planning of the socio-economic development of the enterprise.
17. Formation of a bank of ideas for the development of the enterprise.
18. Features of the organization of cooperation in the field of high technologies.
19. International business relations. SWOT analysis
20. Development of a business plan.
21. Risks.
22. Memorandum of confidentiality.
23. Terms of confidentiality of transmitted information.
24. Venture capital.
25. Economic usefulness of a business plan.
26. Methods for assessing the economic efficiency of innovative projects.
27. Time factor in economic measurements.
28. Discounting cash flows.
29. Dynamic performance evaluation indicators.
30. Financing of innovative projects.
31. Public sources of funding.
32. Extrabudgetary sources of financing.
33. Non-state sources of financing.

34. Commercial sources of funding.
35. Venture funding sources.
36. Financing by the State Fund for Assistance to the Development of Small

Forms

enterprises in the scientific and technical sphere.

37. Financing of innovation activities at the regional level.
38. Financing and support of innovation activities by foreign structures.
39. Financing of non-commercial projects.
40. State policy for the development of innovation.
41. Incubators, technology parks, technopolises, innovation and technology centers and complexes.
42. Training of specialists in the field of technological management and innovation.
43. Management of the technological development of the organization - the content of the qualification of the manager of innovative activities.
44. Regional experience in training innovation managers.
45. Commission on overcoming administrative barriers.
46. Professional associations of entrepreneurs.
47. Pre-trial settlement of disputes.
48. Representation of interests in court.
49. Procedure and features of civil and arbitration processes.
50. Legislative, executive and judicial authorities.
51. Main principles of interaction.
52. Types of inspections, the powers of control and supervisory bodies, the rights of the inspected.
53. Advertising, market research, promotion of products and services.
54. Legal and tax consulting.
55. Audit and accounting services for businesses.
56. Asset valuation and business valuation in entrepreneurial.

Criteria for assessing the oral survey (interview)

The grade "excellent" is given to the student if the student is oriented in the theoretical material; has an idea of the main approaches to the material presented; knows the definitions of the main theoretical concepts of the topic being presented, knows how to apply theoretical information to analyze practical material, basically demonstrates a willingness to apply theoretical knowledge in practice and mastering most of the indicators of formed competencies.

The grade "good" is given to the student if the student is oriented in the theoretical material; has an idea about the main approaches to the material presented, but finds it difficult to answer some questions; knows the definitions of the main theoretical concepts of the topic being presented, but does not fully reflect the essence of the problem under consideration, basically knows how to apply theoretical information to analyze practical material, basically demonstrates a willingness to apply theoretical knowledge in practice and mastering most of the indicators of formed competencies.

The grade "satisfactory" is given to the student if insufficient knowledge of the theoretical material, the basic concepts of the topic being presented is shown, not always with the correct and necessary use of special terms, concepts and categories; the analysis of the practical material was fuzzy.

An "unsatisfactory" grade is given in cases where the conditions for a "satisfactory" grade are not met.