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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"

APPROVE
Vice-President
for International Affairs
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"16" 02 2023

Dean of the Faculty
of Economics and Management
_____ /A.V. Nazarenko/
"___" _____ 2023

THE WORK PROGRAM OF THE OPTIONAL DISCIPLINE

"State Programs and Projects"

Field of study
38.03.02 Management

Educational program (profile)
"Business Process Management"

Qualification (degree)
Bachelor

Form of study
Half-time

Moscow 2023

Developer(s):

Senior lecturer of the Department "Management"  /N.E. Agopyan/

Agreed:
Head of the Department "Management",
Candidate of Economics, Associate Professor  / E.E. Alenina/

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1. Goals, objectives and planned learning outcomes in the discipline

The main goal of the discipline "State programs and projects (online)" is to combine all previously acquired knowledge and skills into a single integrated management system, as well as to study and master the theoretical foundations and practical skills of project management by students. The project approach to management is modern and highly effective, used by many companies and organizations. Project management skills are necessary for managers in all sectors of economic and economic activity, they allow you to quickly and effectively respond to environmental changes, follow the development trends of the market situation.

Training in the discipline "State programs and projects (online)" is aimed at developing the following competencies among students.

2. The place of discipline in the structure of the educational program

The discipline "State programs and projects (online)" is one of the elective disciplines of the bachelor's degree program.

The discipline "State programs and projects (online)" is interconnected logically and content-methodologically with the following disciplines and practices of the EP:

- Management in industries and fields of activity;
- Basics of Technological Entrepreneurship;
- International Management;
- Small Businesses Management.

3. Structure and content of the discipline

The total labor intensity of the discipline is 2 credit units (36 hours).

3.1 Types of educational work and labor intensity

(according to the forms of education)

3.1.1. Part-time education

o. p / p	Type of study work	Number of hours	Semesters	
			7	
	Auditory lessons	**18**	**18**	
	Including:			
1	Lectures	8	8	
2	Seminars/practical classes	10	10	
3	Laboratory studies	-	-	
	Independent work	**18**	**18**	
	Intermediate certification			
	Pass/Differential Pass/Exam	**pass**	**pass**	
	Total	**36**	**36**	

3.2 Thematic plan for studying the discipline

(according to the forms of education)

3.2.1. Half-time education

o. /p	Sections/topics disciplines	Labor intensity, hour					
		Total	Classroom work				Independent work
			Lectures	Seminar / practical training	Laboratory studies	Practical training	
1	Topic 1.Theoretical Foundations of Management of State Programs and Projects (online)	8	2	2	-	-	4
2	Topic 2Scheduling state programs and projects (online)	8	2	2	-	-	4
3	Topic 3.Management of project implementation by state programs and project (online)	8	2	2	-	-	4
4	Topic 4.Financial and economic evaluation of the state program and project (online)	7	1	2	-	-	4
5	Topic 5.Procedures for control and completion of the state program and project (online)	5	1	2	-	-	2
Total		**36**	**8**	**10**	**-**	**-**	**18**

3.3 The content of the discipline

Topic 1. Theoretical Foundations of Management of State Programs and Projects (online)

Project signs. Participants in a government program or project. Project stages. Program or project charter. Project priorities. Goal setting in a program or project. SMART principles. Establishing the scope of the project. Definition of strategies, standards, and procedures. Development of a management plan. Drawing up a work plan. Development of a financial plan. Development of a personnel plan. Organizational preparation planning. Development of a plan for material resources. Creation of the infrastructure of the program or project.

Topic 2. Scheduling state programs and projects (online)

Calendar plans and methods of their calculation. Distribution of resources in the network diagrams of the project. Limited resources. Analysis of the resource feasibility of the project. Resource demand control. Resource loading management. Resource load balancing. Comprehensive management of the work of performers. Bringing the parameters of the calendar plan in accordance with the specified restrictions. heuristic methods. Optimal solutions. Methods of risk and uncertainty analysis. Risk reduction methods. Sensitivity analysis. Stability check. Adjustment of project parameters. Monte Carlo method. Decision tree. Scheduling with MICROSOFT PROJECT.

Topic 3. Management of project implementation by state programs and project (online)

The use of software tools when performing control, including MICROSOFT PROJECT. Monitoring the progress of the state program or project. Evaluation of the state of work and forecasting changes. Change management. Analysis of new calendar plans. Control schedules, resources and costs. Automatic resource leveling. Model update. Management of financial resources during project implementation. Completion of the project. Managing multiple projects. Combining projects.

Topic 4.Financial and economic evaluation of the state program and project (online)

Graph and break-even point, simple payback period. Discounting and the time value of money. Determination of the discount rate. Financial and economic indicators of the project: net present value, discounted payback period, profitability index, internal rate of return.

Topic 5.Procedures for control and completion of the state program and project (online)

Problem management. Change control. Work plan control. Financial plan control. Audit of the quality of work. Evaluation of quality indicators. Document control. Configuration control. Signing of the act of acceptance. Evaluation of the work of personnel. Estimation of material resources. Evaluation of the quality of work. Audit of the key results of the project. Completion of the configuration management process.

3.4 Topics of seminars / practical and laboratory classes

3.4.1. Seminars/practical classes

Topic 1. Theoretical Foundations of Management of State Programs and Projects (online)

Project signs. Participants in a government program or project. Project stages. Program or project charter. Project priorities. Goal setting in a program or project. SMART principles. Establishing the scope of the project. Definition of strategies, standards, and procedures. Development of a management plan. Drawing up a work plan. Development of a financial plan. Development of a personnel plan. Organizational preparation planning. Development of a plan for material resources. Creation of the infrastructure of the program or project.

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Calendar plans and methods of their calculation. Distribution of resources in the network diagrams of the project. Limited resources. Analysis of the resource feasibility of the project. Resource demand control. Resource loading management. Resource load balancing. Comprehensive management of the work of performers. Bringing the parameters of the calendar plan in accordance with the specified restrictions. heuristic methods. Optimal solutions. Methods of risk and uncertainty analysis. Risk reduction methods. Sensitivity analysis. Stability check. Adjustment of project parameters. Monte Carlo method. Decision tree. Scheduling with MICROSOFT PROJECT.

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Topic 4. Financial and economic evaluation of the state program and project (online)

Graph and break-even point, simple payback period. Discounting and the time value of money. Determination of the discount rate. Financial and economic indicators of the project: net present value, discounted payback period, profitability index, internal rate of return.

Topic 5. Procedures for control and completion of the state program and project (online)

Problem management. Change control. Work plan control. Financial plan control. Audit of the quality of work. Evaluation of quality indicators. Document control. Configuration control. Signing of the act of acceptance. Evaluation of the work of personnel. Estimation of material resources. Evaluation of the quality of work. Audit of the key results of the project. Completion of the configuration management process.

3.4.2. Laboratory studies

Not provided.

3.5 Topics of course projects (term papers)

Not provided.

4. Educational, methodological and information support

4.1 Regulatory documents and GOSTs

1. "Constitution of the Russian Federation" (adopted by popular vote on 12.12.1993) - Access mode:http://www.consultant.ru/document/cons_doc_LAW_28399/

2. "Civil Code of the Russian Federation (part one)" dated November 30, 1994 N 51-FZ - Access mode:http://www.consultant.ru/document/cons_doc_LAW_5142/

3. "Civil Code of the Russian Federation (part two)" dated 01/26/1996 N 14-FZ - Access mode:http://www.consultant.ru/document/cons_doc_LAW_9027/

4. "Civil Code of the Russian Federation (Part Three)" dated November 26, 2001 N 146-FZ - Access mode:http://www.consultant.ru/document/cons_doc_LAW_34154/

5. "Civil Code of the Russian Federation (Part Four)" dated 12/18/2006 N 230-FZ - Access mode:http://www.consultant.ru/document/cons_doc_LAW_64629/

4.2 Main literature

1. Kuzmina E. E. Organization of entrepreneurial activity: a textbook for universities - 4th ed., Revised. and additional - M .: Yurayt Publishing House, 2021 - 455 p. - (Higher education). - ISBN 978-5-534-14024-8. — Text: electronic // Educational platform Urayt [website]. - url:https://urait.ru/bcode/468235

2. Project management: textbook / V. N. Ostrovskaya, G. V. Vorontsova, O. N. Momotova [and others]. - 2nd ed., erased. - St. Petersburg: Lan, 2021 - 400 p. - ISBN 978-5-8114-4043-6. — Text: electronic // Doe: electronic library system. - URL: https://e.lanbook.com/book/114700933

4.3 Additional literature

1. Management of organizational innovations: textbook and workshop for universities / A. N. Asaul, M. A. Asaul, I. G. Meshcheryakov, I. R. Shegelman; edited by A. N. Asaul. - Moscow: Yurayt Publishing House, 2021 - 289 p. - (Higher education). - ISBN 978-5-534-04967-1. — Text: electronic // Educational platform Urayt [website]. — URL: https://urait.ru/bcode/473009.

4.4 Electronic educational resources

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/).

4.5 Licensed and Free Software

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, 6198421; Agreement No. 08-05/13 dated 06/03/2013 Acceptance and transfer certificate No. 961

4.6 Modern professional databases and information reference systems

When preparing for classes, it is recommended to use legal reference systems:

1. Official portal of legal information in Russia -http://pravo.gov.ru/
2. Consultant Plus -http://www.consultant.ru/
3. Guarantor -http://www.garant.ru/
4. Server of the state authorities of the Russian Federation -http://www.gov.ru
5. Rossiyskaya Gazeta website and its applications -http://www.rg.ru
6. Official server of the Government of Moscow -http://www.mos.ru
7. Federal State Statistics Service -http://www.gks.ru
8. Ministry of Industry and Trade of the Russian Federation -http://minpromtorg.gov.ru/
9. University Information System of Russia -http://uisrussia.msu.ru
10. Journal "Management in Russia and abroad" -http://www.mevriz.ru
11. RBC (RosBusinessConsulting) -http://www.rbc.ru
12. Business press -http://www.businesspress.ru

5. Logistics

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.

6. Guidelines

6.1 Methodological recommendations for the teacher on the organization of training

(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 designing 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.

6.2 Guidelines for students on mastering the discipline

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.

Seminars are implemented in accordance with the working curriculum with a 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.

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.

7. Evaluation fund

7.1 Methods for monitoring and evaluating learning outcomes

Only students who have completed all types of educational work provided for by the work program of the discipline are allowed to intermediate certification.

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.

7.2 Scale and criteria for evaluating learning outcomes

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. 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 (report) are allowed to intermediate certification.

Evaluation scale	Description
Passed	All types of educational work provided for by the curriculum were completed. The student demonstrates the correspondence of knowledge, skills and abilities given in the tables of indicators, operates with the acquired knowledge, skills, skills, applies them in situations of increased complexity. In this case, minor errors, inaccuracies, difficulties in analytical operations, transferring knowledge and skills to new, non-standard situations can be made.
Not credited	One or more types of educational work provided for by the curriculum have not been completed. The student demonstrates incomplete correspondence of knowledge, skills and abilities given in the tables of indicators, significant errors are made, the lack of knowledge, skills and abilities is manifested in a number of indicators, the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations.

7.3 Evaluation tools

1.3.1. Current control

Indicative list of topics of reports / presentations

1. State program "Mobile city".
2. State program "Comfortable urban environment".
3. State program "Healthy city".
4. State program "Educated city".
5. State program "Socially protected city".
6. State program "New Economy of Moscow".

7. State program "Open Moscow".

7.3.2. Intermediate certification

Sample checklist of questions:

1. Basic principles of project management, their implementation in the development and implementation of state programs and projects.
2. Program Risk Assessment
3. State program "Mobile City" - essence, goals, content
4. The state program "Mobile city" - the main risks and ways to minimize them
5. State program "Mobile City" - implementation practice, problems и solutions
6. The state program "Mobile City" - ways to improve based on the experience gained in Moscow and other cities.
7. State program "Comfortable urban environment" - essence, goals, content
8. State program "Comfortable urban environment" - the main risks and ways to minimize them
9. State program "Comfortable urban environment" - implementation practice, problems and solutions
10. The state program "Comfortable urban environment" - ways to improve based on experience gained in Moscow and other cities.
11. State program "Healthy City" - essence, goals, content
12. The State Program "Healthy City" - the main risks and ways to minimize them
13. State Program "Healthy City" - implementation practice, problems and solutions
14. State Program "Healthy City" - ways to improve based on experience gained in Moscow and other cities.
15. State Program "Educated City" - essence, goals, content
16. The State Program "Educated City" - the main risks and ways to minimize them
17. State Program "Educated City" - implementation practice, problems and solutions
18. The state program "Educated City" - ways to improve based on the experience gained in Moscow and other cities.
19. State program "Socially protected city" - essence, goals, content
20. State program "Socially protected city" - the main risks and ways to minimize them
21. State program "Socially protected city" - implementation practice, problems and solutions
22. State Program "Socially Protected City" - ways to improve based on experience gained in Moscow and other cities.
23. State program "New Economy of Moscow" - essence, goals, content
24. The state program "New Economy of Moscow" - the main risks and ways to minimize them
25. State Program "New Economy of Moscow" - implementation practice, problems and solutions
26. The state program "New Economy of Moscow" - ways to improve based on the experience gained in Moscow and other cities.
27. State program "Open Moscow" - essence, goals, content
28. State program "Open Moscow" - the main risks and ways to minimize them
29. State program "Open Moscow" - implementation practice, problems и solutions
30. State program "Open Moscow" - ways of improvement based on the experience gained in Moscow and other cities.