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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
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"30" 05 2022

Dean,
Faculty of Economics and
Management
_____ /A.V. Nazarenko/
"30" 05 2022

WORKING PROGRAM OF THE DISCIPLINE

"Project management"

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

aimmastering the discipline "Project Management" is:

- combining all previously acquired knowledge and skills into a single integrated management system, as well as the study and development by students of the theoretical foundations and practical skills of project management.

The main tasks of mastering the discipline "Project Management" include:

- training in the project approach to managing the organization;

-training in quick response to changing trends in the development of a market economy.

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

The discipline "Project Management" is one of the disciplines of the part formed by the participants in educational relations (B1.2) of the bachelor's degree program.

The discipline "Project Management" is interconnected logically and content-methodically with the following disciplines and practices of the EP:

- Project activity
- Introduction to project activities
- Fundamentals of Management
- Economic theory

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, students form the following competence and the following learning outcomes should be achieved as a stage in the formation of the relevant competence:

Competency code	As a result of mastering the educational program, the student must have	List of planned learning outcomes by discipline
UK-2	Able to determine the range of tasks within the set goal and choose the best ways to solve them based on the current legal norms of available resources and restrictions	**know:** ● Fundamentals of project management, types of product and technological innovations **be able to:** ● Use project management principles, implement technological and product innovations, or implement organizational changes **own:** Methods of project management, innovation and organizational change

4. Structure and content of the discipline

Part-time education:

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 "Project Management" are studied in the first year.

Second term: seminars - 18 hours, form of control - test.

The structure and content of the discipline "Project Management" by terms and types of work are reflected in the appendix.

The content of the sections of the discipline

Topic 1. Project management: basic concepts

The project as the basic concept of the discipline "Project Management". Classification of projects.

Topic 2. Project management

Project management: requirements for the project.Project concept: basic concepts and characteristics.

Topic 3. Fundamentals of the organization of the project management process.

Project initialization. Project charter. The project as a socio-economic system.

Topic 4. Project team

Fundamentals of team building. Team life cycle.

Topic 5. Project start

Project charter. External and internal environment of the project. Psychology of small social groups.

Topic 6. Project life cycle

Project life cycle: basic concepts. Project life cycle models. Project marketing.

Topic7. Fundamentals of project business planning

Business plan: basic concepts. Effects and classification of effects.

Topic8. Project risk management

Project risk management: basic concepts. Project risk portfolio.

Topic 9. Completion of the project

Project time management. Completion of the project. Project efficiency assessment

5. Educational technologies

The methodology for teaching the discipline "Project Management" 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 group, individual, classroom classes in combination with extracurricular work in order to form and develop the professional skills of students:

– lectures;

- preparation for seminars;

– preparation, presentation and discussion of reports at seminars;

- organization and conduct of current control of students' knowledge in the form of testing.

The proportion of classes conducted in interactive forms is determined by the main goal of the educational program, the peculiarity of the contingent of students and the content of the discipline"Project management" and in general for the discipline is at least 50% of the classroom.

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

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

Evaluative means of monitoring progress include control questions and tasks in the form of blank testing, participation in a business game, and presentation of a report.

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 posted in the LMS of the Moscow Poly (https://online.mospolytech.ru/course/view.php?id=410).

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.

Samples of questions and tasks for conducting current control are given in the appendix.

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 competence is 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 the current legal norms of available resources and restrictions

In the process of mastering the educational program, this competence, including their individual components, is 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-2 -Able to determine the range of tasks within the set goal and choose the best ways to solve them based on the current legal norms of available resources and restrictions				
Index	**Evaluation criteria**			
	2	**3**	**four**	**5**
know: project features; basics of project management; areas of application of modern approaches to project activities and project management in the field of management on examples from real practice	The student demonstrates the complete absence or insufficient compliance of the following knowledge: the basics of project management. Does not attend classes in the discipline and does not fulfill the tasks of the curator for the project	The student demonstrates incomplete compliance with the following knowledge: the basics of project management. Significant mistakes are made, lack of knowledge is manifested, for a number of indicators, the student experiences significant difficulties in operating knowledge when transferring it to new situations. Attends classes partly in the discipline and partly fulfills the tasks of the curator for the project	The student demonstrates partial compliance with the following knowledge: the basics of project management, but minor errors, inaccuracies, and difficulties in analytical operations are allowed. Attends classes partially in the discipline and fulfills the tasks of the curator for the project	The student demonstrates full compliance with the following knowledge: the basics of project management, freely operates with the acquired knowledge. Attends classes in the discipline and fulfills the tasks of the curator for the project in full
be able to: logically correct, reasoned and clearly build oral and written speech; collect, process and	The student does not know how or insufficiently knows how to plan and organize work, coordinate its	The student demonstrates incomplete compliance with the following skills: plan and organize work,	The student demonstrates partial compliance with the following skills: plan and organize work, coordinate its	The student demonstrates full compliance with the following skills: plan and organize work, coordinate its

analyze information about the factors of the external and internal environment of the organization for making management decisions distinguish between types of projects	implementation	coordinate its implementation. 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.	implementation Skills are mastered, but minor errors, inaccuracies, difficulties in analytical operations, transferring skills to new, non-standard situations are allowed.	implementation. Freely operates with acquired skills, applies them in situations of increased complexity.
own: methods for calculating the main financial indicators of the enterprise	The student demonstrates the complete absence or insufficient compliance of the following knowledge: methods of making and implementing managerial decisions based on the received theoretical knowledge, as well as monitoring their implementation; methods of analytical and independent research work on the study of the principles of activity and economic functioning of organizations	The student demonstrates incomplete compliance with the following knowledge: methods of making and implementing management decisions based on the received theoretical knowledge, as well as monitoring their implementation; methods of analytical and independent research work to study the principles of activity and economic functioning of organizations Significant mistakes are made, 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: methods for making and implementing management decisions based on the theoretical knowledge obtained, as well as monitoring their implementation; methods of analytical and independent research work to study the principles of activity and economic functioning of organizations, but minor errors, inaccuracies, and difficulties in analytical operations are allowed.	The student demonstrates full compliance with the following knowledge: methods of making and implementing management decisions based on the theoretical knowledge obtained, as well as monitoring their implementation; methods of analytical and independent research work on the study of the principles of activity and economic functioning of organizations, freely operates with acquired knowledge.

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 the implementation 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. According to the results of the intermediate certification, “pass” or “not pass” is set.

Only students who have completed all types of educational work provided for by the work program in the discipline "Project Management" are allowed to the intermediate certification (passed the intermediate control)

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, lack of knowledge, skills, skills is manifested in a number of indicators, the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations.

The evaluation funds are presented in the annex to the work program.

7. Educational, methodological and information support of the discipline "Project Management"

a) basic literature:

1. 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

2. Chusavitina, G. N. Mathematical methods of project management: textbook / G. N. Chusavitina, V. N. Makashova, I. K. Skokova. - 2nd ed. - Moscow: FLINTA, 2021. - 130 p. - ISBN 978-5-9765-3794-1. — Text: electronic // Doe: electronic library system. - url:https://e.lanbook.com/book/104933

b) additional literature:

1. Guide to the body of knowledge on project management (PMBOK® Guides): per. from English: [16+] /. – 5th ed. - Moscow: Olymp-Business, 2018. - 613 p.: tables, diagrams. – Access mode: – RL: http://biblioclub.ru/index.php?page=book&id=494449 – Text: electronic.

2. Lich, L. On time and within the budget: project management according to the critical chain method / L. Lich; scientific ed. O. Zupnik; per. U. Salamatova. - 3rd ed. - Moscow: Alpina Publisher, 2016. - 352 p. : schemes. – Access mode: – URL:

http://biblioclub.ru/index.php?page=book&id=471708 – ISBN 978-5-9614-5004-0. – Text : electronic.

3. Project management using Microsoft Project / T.S. Vasyuchkova, N.A. Ivancheva, M.A. Derzho, T.P. Pukhnachev. - 2nd ed., Rev. - Moscow: National Open University "INTUIT", 2016. - 148 p. : ill. – Access mode: – URL: http://biblioclub.ru/index.php?page=book&id=429881 . - Bibliography. in book. – Text : electronic.

The possibility of using e-learning, distance learning technologies is provided. All materials are placed in the LMS of the Moscow Poly. (https://online.mospolytech.ru/course/view.php?id=410)

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.

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.Methodological recommendations 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:
Art. teacher of the department "Management" / Koshel I.S. /
The program was approved at a meeting of the department "Management"
August 29, 2022, Protocol No. 1

Head of the Department "Management"
k. e. PhD, Associate Professor / Alenina E.E. /

Structure and content of the discipline
"Project management"
in the direction of preparation 38.03.02 "Management" (bachelor)
educational program "Business Process Management"
Part-time education

Chapter	Semester	A week semester	Types of educational work, including independent student work, and labor intensity in hours					Types of independent work students					Forms of attestation	
			L	F/N	Lab	SRS	DAC	K.R.	K.P.	K/R	T	DC	E	Z
Topic 1 Project Management: Basic Concepts	2	1-2		2		6						+		
Topic 2 Project management	2	3-4		2		6						+		
Topic 3 Fundamentals of organizing the project management process	2	5-6		2		6								
Topic 4 Project team	2	7-8		2		6						+		
Topic 5 Project start	2	9-10		2		6						+		
Topic 6 Project life cycle	2	11-12		2		6						+		
Topic 7 Fundamentals of project business planning	2	13-14		2		6						+		
Topic 8 Project Risk Management	2	15-16		2		6						+		
Topic 9 Project Completion	2	17-18		2		6								
Appraisal Form												one		Z
Total hours per discipline				eighteen		54								

Appendix 2 to
work program

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION

FEDERAL STATE BUDGETARY 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

"Project management"

Composition: 1. Passport of the fund of appraisal funds

2. Description of evaluation tools

Compiled by:

Art. teacher Co.shel I.S.

Moscow, 2022

INDICATOR OF THE LEVEL OF FORMATION OF COMPETENCES

Project management					
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**				
UK-2	Able to determine the range of tasks within the set goal and choose the best ways to solve them based on the current legal norms of available resources and restrictions	**know:** project features; basics of project management; areas of application of modern approaches to project activities and project management in the field of management on examples from real practice **be able to:** carry out the formation and management of the organization; apply modern approaches to project activities and project management in the field of management using examples from real practice coordinate the activities of performers **own:** skills of step-by-step control over the implementation of business plans	independent work, seminars	DS, Z	**A basic level of:** formedthe ability to work within the framework of the project together with other participants at all stages of its life cycle, taking into account the direction of the student's professional activity. **Advanced level:** athasty and systematic application of the skills of organizing and implementing projects to the specified requirements and on time.

Appendix 3
to work program

List of assessment tools by discipline

Project management

OS number	Name of the evaluation tool	Brief description of the evaluation tool	Presentation of the evaluation tool in the FOS
one	Report, message (DS)	The product of the student's independent work, which is a public performance on the presentation of the results of solving a specific educational, practical, educational, research or scientific topic	Topics of reports, messages
2	Pass (D)	Form of knowledge assessment. In higher education institutions are held during the session.	Questions for the test

Questions for the test in the discipline

"Project management»

formation of the competence of UK-2

1. Define a project. Give different definitions. Indicate the difference between the traditional definition of a project and the definition adopted in the discipline "Project Management".
2. What are the main characteristics of the project and the relationship between them?
3. Specify the main participants of the project and their functions. What are the main functions of the project manager and the project team.
4. How can projects be classified?
5. Describe the factors of the far environment of the project, the factors of the near environment of the project, the internal environment of the project. What is the consideration of the project environment in planning and management.
6. Specify the main phases of the project life cycle. How is the life cycle defined from the point of view of various project participants (customer, investor, project team)?
7. Describe the conceptual phase of the project and give the main stages of this phase.
8. Describe the planning phase of the project and give the main stages of this phase.
9. Describe the project implementation phase and provide the main project management functions in this phase.
10. What are the phases of completion, operation and liquidation of the project and the main functions of project management in these phases?
11. What are the main tasks, purpose and principles of drawing up a business plan?

12. Describe the structure of a business plan.
13. What is the content of the financial and economic section of the business plan?
14. Indicate the approximate composition of cash flows from the investment, operating, and financial activities of the project. How calculation steps are determined, cash flow balance.
15. Draw a typical project financial profile. What is the condition for the financial feasibility of the project?
16. What are the basic principles for analyzing the effectiveness of projects. Why is it necessary to take into account the time factor in the analysis of efficiency?
17. The concept of the value of money in time and the need to take into account the value of money in time when analyzing the effectiveness of projects. What are the main factors that affect the time value of money?
18. The concept of capital accumulation and its economic meaning. How to determine the future value of cash flow and annuity.
19. What is cash flow discounting and what is the economic meaning of the discounting operation? How to determine the present value of cash flow and annuity?
20. What are the main criteria for the effectiveness of projects. What is their relationship?
21. Net present value of the project (NPV), its definition, calculation formulas, economic sense, advantages and disadvantages. The nature of the dependence of NPV on the discount rate.
22. Project profitability index (PI), its definition, calculation formulas, economic sense, advantages and disadvantages.
23. The internal rate of return of the project (IRR), the definition of this criterion, the equation for its calculation, economic meaning, advantages and disadvantages.
24. Payback period of the project (PB), its definition, calculation formula, economic sense, advantages and disadvantages. Discounted payback period (DPB) and its definition.
25. Project investment efficiency ratio (ARR) and its definition.
26. Modified project internal rate of return (MIRR), the definition of this criterion, and its economic meaning, situations in which it is necessary to use it.
27. What are the basic principles for determining the discount rate when analyzing projects. What is the concept of the weighted average cost of capital (WACC) and how to determine the weighted average cost of capital?
28. Types of project efficiency and features of their calculation.
29. Features of determining the effectiveness of the project as a whole, public and commercial efficiency.
30. Features of determining the effectiveness for enterprises - participants in the project, for shareholders, regional, federal and budgetary efficiency of projects.
31. Name the main groups of financial indicators of the base enterprise and the project as a future enterprise (indicators, liquidity, capital structure (solvency), business activity (turnover), profitability.), Explain their economic meaning. What is the purpose of these indicators?
32. What criteria are used to compare projects, their ranking and selection for further

funding? What kinds of dependencies exist between projects? What contradictions between different criteria can arise when comparing projects?

33. What contradictions can arise when comparing and ranking projects of different sizes? If there is a discrepancy between the time of cash receipts of projects? If the project durations do not match? What recommendations can you give to eliminate these contradictions?
34. What is the "Fisher point", how to define it and how its position affects the decision to choose a more efficient project.
35. The concept of project sustainability. How to determine the break-even point of the project, how does its provisions affect the risk and sustainability of the project?
36. Give a classification of project risks. Name the main methods of risk management.
37. Name the methods of qualitative analysis of project risks.
38. What are the main methods of quantitative analysis of project risks.
39. The concept of project sustainability. How to determine the break-even point of the project, how does its provisions affect the risk and sustainability of the project?
40. What is the sensitivity analysis of the project, how is the elasticity of project performance indicators determined.
41. What is the analysis of project scenarios as a method of risk analysis. What probabilistic risk measures do you know?
42. Explain the essence of the Monte Carlo method (simulation modeling method) and its use for project risk analysis.
43. How to assess project risk by building a project decision tree.
44. Risk accounting methods that use discount rate adjustment (adding a "risk premium" to the discount rate). What are the main factors affecting the risk of the project and the value of the "risk premium".
45. What is the Capital Asset Pricing Method (CAPM) and how is this method used to assess project risk. What is the ratio between the profitability and risk of the project.
46. What are the main types of inflation and the main parameters of inflation (price index and inflation rate, basic and chain price index) How does inflation affect interest rates on loans and deposits, How are nominal and real interest rates determined.
47. What methods of accounting for inflation do you know when designing.
48. Name the main sources of financing for the project. Describe your own, external and borrowed sources of funding.
49. The concept of leasing as a source of financing. The concept of venture financing projects.
50. Autonomous financing of projects.
51. What are the main organizational structures of project management. Organization of project management within the functional structure. Advantages and disadvantages of this form of management.
52. Organization of project management on the principle of independent teams.

Advantages and disadvantages of this form of management.

53. The concept of the organization of the project type.
54. Matrix organizational structures of project management. Weak, balanced and strong matrix structures. Advantages and disadvantages of matrix organizational structures in project management.
55. What are the basic principles for the formation of a project team, the approximate composition of the project team, the main requirements for a project manager.
56. How is the project decomposition (work breakdown structure, WBS) done? What are the basic principles of project decomposition (WBS). How WBS and the development of a project organizational structure (OBS) are related.
57. What is a project network schedule, what is its purpose? Basic rules for constructing network graphs, the main types of links between operations.
58. The concept of the critical path method (CPM). Calculation of the critical path. Forward and backward analysis and determination of the project execution time as a whole and operation time reserves. The importance of the critical path and operation time slack for planning and management.
59. Additional features for building network graphs (time delays between operations (lags), types of connections between operations: from end to beginning (finish-start), from start to start (start-start), from end to end (finish-finish) from start to the end (start-finish)).
60. The concept of the PERT method for calculating the probable values of the project execution time.
61. Project budget and resource scheduling using network methods.
62. What is the management and regulation in the implementation and completion phases of the project (project scope management, time management, project budget and resource management, quality management, project information flow management, project team management, supply and contract management).
63. The concept of the method of earned value in project management in the implementation phase. The main indicators that are calculated by this method.
64. What is the project's basic cumulative cost schedule (S-curve)?
65. What methods of operational assessment (monitoring) of time and cost indicators of work in the process of project implementation do you know?
66. How is the earned value baseline determined: Planned Value (PV, BCWS), Actual Value (EV, BCWP), Earned Value (AC, ACWP)?
67. How is the analysis of the current state of the project carried out using the method of earned value? What is the meaning of "schedule variance" (SV) and "cost variance" (CV) indicators.
68. How is the analysis of the current state of the project carried out using the method of earned value? What is the meaning of Schedule Performance Index (SPI) and Budget Performance Index (CPI)?
69. How is the project budget forecasted using the earned value method? How to calculate Projected Project Cost (EAC) and Project Completion Budget Variance (VAC).
70. Audit and completion of the project. The process of closing a project. Evaluation of the success of the project. Evaluation of the work of the project manager,

individual team members and the team as a whole.

Topics of reports by discipline "Project management" (formation of the competence of UK-2)

1. Relevance and novelty of the project.
2. The practical significance of the project.
3. Analysis of analogs of the developed project.
4. Analysis of the target audience for the project.
5. Requirements for the final result of the project.
6. Alternative concepts for the project.
7. Project Implementation Plan.
8. Project passport message.
9. Message on the results of the sub-stages.
10. A message about the resources used in the project.
11. Message on the tools used to implement the project.
12. Project indicators: aesthetic, ergonomic, economic, technical.
13. Organization of teamwork within the framework of the project.
14. Indicators for evaluating the effectiveness of the project.
15. Discussion of the results of the project

Report Evaluation Criteria

No.	Criterion	Grade			
		ex.	choir.	satisfactory	unsatisfactory
one	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	The material presented contains elements that are not	The material presented contains a large number of	The material presented is slightly relevant to

		stated topic.	relevant to the topic.	elements that are not related to the topic.	the topic.