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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 POLYTECHNIC UNIVERSITY)

Faculty of Economics and Management

APPROVED BY
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_____ /A. V. Nazarenko/
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WORKING PROGRAM OF THE DISCIPLINE

«Evaluating the Cost of Innovation»

Direction of training/specialty
38.03.01 Economy

Profile/specialization
International business and foreign economic

Qualification
bachelor

Forms of study
full-time

Moscow, 2025

Developer(s):

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1. Objectives, tasks and planned learning outcomes for the discipline

The goalmastering the discipline "Assessment of the cost of innovations" is the formation students have a system of modern knowledge about the essence of innovative processes in the economy, and also develop the skills and abilities necessary for assessing the cost of innovations and analyzing their effectiveness.

Main**tasks**study of the discipline:

- study the theoretical and applied aspects of innovation activities;
- study of the theory of innovation management and innovation cost assessment;
- study of the principles of innovation management at the stages of the innovation process;
- get acquainted with the basics of state policy in the field of innovation. Training in the discipline "Assessment of the cost of innovations" is aimed at developing the following competencies in students:

Code and name of competencies	Indicators of Competence Achievement
PC - 2 Able to calculate and analyze economic indicators of the organization's performance (Task type professional activity - accounting and economic)	IPC- 2.1 Justifies and applies statistical, economic and mathematical, marketing methods of studying the external environment and activities of the organization, carries out calculations of financial and economic indicators, including using standard methods and regulatory legal acts IPC-2.4. Calculates indicators economic efficiency organizations labor, production of products, implementation of innovative technologies and determines reserves increases efficiency activities organizations, directions improving forms of labor organization and management IPC- 2.7. Analyzes and interprets financial and accounting information contained in the organization's reporting and uses the information obtained to make management decisions

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

The discipline belongs to the part formed by the participants of educational relations of block B1 “Disciplines (modules)”.

The study of the discipline is based on the following disciplines, and practical training:

- Microeconomics and
- macroeconomics; World economy;
- Protection of intellectual property;
- Taxes and taxation;
- Economics of enterprises and organizations;
- Finances of enterprises and organizations;
- Economic analysis.

The main provisions of the discipline should be used in the future when studying the following disciplines (practices):

- Marketing research;

- Planning and budgeting of activities of enterprises and organizations;
- Pricing;
- Product promotion technologies; Commercial activities
- of enterprises and organizations; Pre-graduation
- practice.

3. Structure and content of the discipline

The total workload of the course is 4 credit units (144 hours).

3.1 Types of academic work and labor intensity

3.1.1. Full-time education

p/p	Type of academic work	Quantity hours	Semesters	
			7	-
1.	**Classroom lessons**	**54**	**54**	-
	including:			
1.1	Lectures	18	18	-
1.2	Seminars/practical classes	36	36	-
1.3	Laboratory exercises	-	-	-
2.	**Independent work**	**90**	**90**	-
	including:			
2.1	Preparation for practical classes (study of lecture material)	46	46	-
2.2	Preparing for testing	22	22	-
2.3	Solving problems on your own	22	22	-
	Interim assessment			
	credit/differential credit/exam		**Exam**	-
	Total	**144**	**144**	-

3.1.2. Part-time and part-time education

p/p	Type of academic work	Quantity hours	Semesters	
			7	-
1.	**Classroom lessons**	**36**	**36**	-
	including:			
1.1	Lectures	18	18	-
1.2	Seminars/practical classes	18	18	-
1.3	Laboratory exercises	-	-	-
2.	**Independent work**	**108**	**108**	-
	including:			
2.1	Preparation for practical classes (study of lecture material)	60	60	-
2.2	Preparing for testing	24	24	-
2.3	Solving problems on your own	24	24	-
	Interim assessment			
	credit/differential credit/exam		**Exam**	-
	Total	**144**	**144**	-

3.2 Thematic plan for studying the discipline

(by form of education)

3.2.1. Full-time education

p/p	Sections/Topics of the Discipline	Labor intensity, hour					
		Total	Classroom work				Independent Job
			Lectures	Practical classes	Laboratory classes	Practical Preparation	
1.	Economic essence and types of innovations	10	2	4	-	-	4
2.	Stages of the Innovation Life Cycle	12	2	4	-	-	6
3.	Forms of small innovative entrepreneurship	12	2	4	-	-	6
4.	Methods for increasing the efficiency of using scientific developments to create innovations	18	2	4	-	-	12
5.	Financing of innovation activities	18	2	4	-	-	12
6.	Features of state regulation of innovation activities	18	2	4	-	-	12
7.	Innovative strategies of the enterprise	20	2	4	-	-	14
8.	Evaluation of the effectiveness of innovation activities	18	2	4	-	-	12
9.	Risk management in innovation activities	18	2	4	-	-	12
	Total	**144**	**18**	**36**	**-**	**-**	**90**

3.2.2. Part-time and part-time education

p/p	Sections/Topics of the Discipline	Labor intensity, hour					
		Total	Classroom work				Independent Job
			Lectures	Practical classes	Laboratory classes	Practical Preparation	
1.	Economic essence and types of innovations	16	2	2	-	-	12
2.	Stages of the Innovation Life Cycle	16	2	2	-	-	12
3.	Forms of small innovative entrepreneurship	16	2	2	-	-	12
4.	Methods for increasing the efficiency of using scientific developments to create innovations	16	2	2	-	-	12
5.	Financing of innovation activities	16	2	2	-	-	12

6.	Features of state regulation of innovation activities	16	2	2	-	-	12
7.	Innovative strategies of the enterprise	16	2	2	-	-	12
8.	Evaluation of the effectiveness of innovation activities	16	2	2	-	-	12
9.	Risk management in innovation activities	16	2	2	-	-	12
	Total	**144**	**18**	**18**	**-**	**-**	**108**

3.3 Contents of the discipline

Topic 1. Economic essence and types of innovations

The basic concepts of "innovation", "novelty", "innovative project", "innovative activity", etc. Content and types of innovations, innovative activities, types of innovative development.

Topic 2. Stages of the innovation life cycle

Definition of "innovation life cycle". Concept of innovation life cycle. Types of product life cycle. Stages of new product life cycle. Life cycle of new operation

Topic 3. Forms of small innovative entrepreneurship

New firms within old companies. Venture firms – risk firms. Incubator programs and networks of small firms. Inter-firm scientific and technical cooperation in innovation processes.

Topic 4. Methods for increasing the efficiency of using scientific developments to create innovations

Venture funds and their role in creating innovations. Silicon Valley. Large innovation centers. State regulation of innovation activities abroad.

Topic 5. Financing of innovative activities

The essence of financing as a factor in the socio-economic development of countries. Russia. USA. Japan. European countries.

Topic 6. Features of state regulation of innovation activities

Basics state regulation innovative activities. Formation of state innovation policy in foreign countries. Features of state regulation of innovation activity in the Russian Federation.

Topic 7. Innovative strategies of the enterprise

R&D strategies. Innovation implementation and adaptation strategies. Licensing strategy. Research leadership strategy. Life cycle following strategy. Parallel development strategy. Advanced science intensity strategy. Product line support strategy. Retro innovation strategy. Technological position maintenance strategy. Product and process imitation strategy. Stage-by-stage overcoming strategy. Technological transfer strategy. Technological connectivity strategy. Market following strategy. Vertical borrowing strategy. Radical outperformance strategy. Waiting for the leader strategy. Formation of a portfolio of innovation strategies.

Topic 8. Evaluation of the effectiveness of innovation activities

The essence of the problem of assessing the effectiveness of innovations. The main methods of assessing the effectiveness of innovations in a market economy. Types of effect and comprehensive assessment

efficiency of innovation. Statistical methods of efficiency assessment. Dynamic efficiency indicators.

Topic 9. Risk management of innovation activities

The concept of "risk" and its relationship with the concept of "efficiency". Selecting an individual discount rate for an innovative project. Taking into account the risk propensity of an individual investor. The essence and practical techniques for using the scenario method. Principles for forming packages of innovative projects. The essence and procedures for selecting innovative projects. The main stages and technology of expert assessment of innovative projects.

3.4 Topics of seminars/practical and laboratory classes

3.4.1. Seminars/practical classes

Topic 2. Calculation of the projected cost of a unit of new production.

Topic 3. Evaluation of the enterprise's innovative activity.

Topic 4. Calculation of specific indicators characterizing the level of innovative activity for individual types of innovative activity.

Topic 5. Calculation of the volume of necessary and additional costs for the development of new products.

Topic 6. Planning cost indicators for the development and production of innovative products.

Topic 7. Calculation of the cost of a license for an invention.

Topic 8. Definition of integral indicators characterizing the state of research and development work, the level of technological and organizational and managerial training.

Topic 9. Calculation of the degree of risk of an innovative project.

3.4.2. Laboratory exercises

Laboratory classes for this discipline are not provided for in the curriculum.

3.5 Topics of course projects (course papers)

The curriculum does not provide for a course project (course work) for this discipline.

4. Educational, methodological and informational support

4.1 Regulatory documents and GOSTs

1. Federal Law of 23.08.1996 No. 127-FZ (as amended on 17.02.2023) "On Science and state scientific and technical policy".

2. "GOST R 55901-2013. National standard of the Russian Federation. Guidelines guidelines for the justification and development of standards for management systems for innovative areas of activity" (approved and put into effect by Order of Rosstandart dated 17.12.2013 N 2269-st).

3. Decree of the President of the Russian Federation of 01.12.2016 No. 642 (as amended 03/15/2021 No. 143) "On the Strategy for Scientific and Technological Development of the Russian Federation"

4.2 Main literature

1. Porotkin, E. S. Innovative economy and digitalization of business: educational manual / E. S. Porotkin. - Samara: Samara State Technical University, 2021. - 132 p. - Text: electronic // Digital educational resource IPR SMART: [site]. - URL: https://www.iprbookshop.ru/122202.html (date accessed: 06/14/2023).

4.3 Further reading

1. Bogatova, E. V. Innovative Economy: monograph / E. V. Bogatova. - Moscow : Rusains, 2018. - 86 p. - ISBN 978-5-4365-2083-4. - Text: electronic // Digital educational resource IPR SMART: [site]. - URL: http://www.iprbookshop.ru/78860.html (date of access: 23.07.2023).

2. Kuznetsov, B. T. Economy and financial support of innovative activities : a textbook for university students studying economic specialties / B. T. Kuznetsov. - Moscow: UNITY-DANA, 2017. - 295 p. - ISBN 978-5-238-02183-6. - Text: electronic // Digital educational resource IPR SMART: [site]. - URL: https://www.iprbookshop.ru/81595.html (date of access: 06.07.2023).

3. Strelkova, L. V. Economy and organization of innovations. Theory and practice: educational manual for university students studying in the fields of "Economics" and "Management" / L. V. Strelkova, Yu. A. Makusheva. - 2nd ed. - Moscow: UNITY-DANA, 2017. - 235 p. — ISBN 978-5-238-02451-6. — Text: electronic // Digital educational resource IPR SMART: [site]. — URL: https://www.iprbookshop.ru/81593.html (date accessed: 14.07.2023).

4. Tepman, L. N. Innovative Economy: a textbook for university students, students in the fields of economics and management / L. N. Tepman, V. A. Naperov. - Moscow: UNITY-DANA, 2017. - 278 p. - ISBN 978-5-238-02579-7. - Text: electronic // Digital educational resource IPR SMART: [site]. - URL: https://www.iprbookshop.ru/81629.html (date of access: 07/08/2023).

5. Human resources in an innovative economy. Retrospect and prospect development: a collective monograph / E. A. Aleshaev, L. I. Antonova, S. Byalobloskaya [et al.]; edited by A. A. Stepanov, M. V. Savina. - 2nd ed. - Moscow: Scientific consultant, 2018. - 240 p. - ISBN 978-5-6040243-4-8. - Text: electronic // Digital educational resource IPR SMART: [website]. - URL: https://www.iprbookshop.ru/75491.html (accessed: 10.07.2023).

4.4 Electronic educational resources

The electronic educational resource for the discipline “Assessment of the cost of innovations” is under development.

4.5 Additional electronic educational resources

1. Technological development. Innovations (key decisions; documents and events). Access mode: http://government.ru/rugovclassifier/720/events/ (date of access: 10.07.2023).

2. Open Academic Journals Index (OAJI). Professional database – Mode access: http://oaji.net/

4.6 Licensed and freely distributed software security

1. Microsoft Office suite programs (Word, Excel, PowerPoint)

4.7 Modern professional databases and information reference systems

1. SPS "ConsultantPlus: Non-commercial Internet version". - URL: http://www.consultant.ru/online/ (date accessed: 16.06.2023). –Access mode: free.

5. Logistics

1. Lecture hall.
2. Auditorium for practical classes.
3. Computer class with Internet access.
4. Audience for group and individual consultations, ongoing monitoring and midterm assessment.
5. Audience for independent work.

6. Library, reading room.

6. Methodological recommendations

6.1 Methodological recommendations for the teacher on the organization training

This section of this work program is intended for beginning teachers and practicing specialists who do not have teaching experience.

The course “Assessment of the Cost of Innovations” develops students’ competence UK-10. In the context of constructing educational systems based on the principles the competence-based approach has resulted in a conceptual change in the role of the teacher, who, along with the traditional role of the knowledge carrier, performs the function of the organizer of the student's research work, a consultant in the procedures for selecting, processing and interpreting information necessary for practical action and further development, which must be taken into account when conducting lectures and practical classes in the discipline "Assessment of the cost of innovations".

Teaching theoretical (lecture) material on the subject “Assessment of the cost of innovations” is carried out on the basis of interdisciplinary integration and clear interdisciplinary connections within the framework of the educational program and curriculum.

The detailed content of individual topics of the discipline “Assessment of the cost of innovations” is considered in paragraph 3.3 of the work program.

Sample versions of tasks and test assignments for current monitoring and a list of questions for the exam in the discipline are presented in the FOS for the discipline in paragraph 7 of this work program.

The list of primary and secondary literature, databases and information reference systems required in the course of teaching the discipline “Assessment of the Cost of Innovations” is given in paragraph 4 of this work program.

6.2 Methodological instructions for students on mastering the discipline

Acquiring in-depth knowledge of the discipline is achieved through active independent work of students. It is advisable to use the allocated hours to get acquainted with educational and scientific literature on the problems of the discipline, and to analyze scientific concepts.

The discipline provides for various forms of monitoring the level of achievement by students of the stated indicators of mastery of competencies.

Forms of ongoing control – active work in practical classes, testing.

The form of intermediate control in the discipline is an exam, during which the level of achievement of the stated indicators of mastery of competencies by students is assessed.

Methodological guidelines for mastering the discipline.

Lecture classes are conducted in accordance with the content of this work program and represent a presentation of the theoretical foundations of the discipline.

Attendance at lectures is mandatory.

Taking notes on lecture material is permitted both in writing and on a computer.

Regular repetition of the material of lecture notes for each section in preparation for the current forms of certification in the discipline is one of the most important types of independent work of the student during the semester, necessary for high-quality preparation for the midterm certification in the discipline.

Conductingpractical classes in the discipline "Assessment of the cost of innovations" is carried out in the following forms:

- survey on materials discussed in lectures and studied independently recommended literature;
- analysis and discussion of issues on topics, problem solving.

Attendance at practical classes and active participation in them is mandatory.

Preparation for practical classes necessarily includes studying lecture notes and recommended literature for an adequate understanding of the conditions and method of completing the tasks planned by the teacher for a specific practical class.

Methodological guidelines for the implementation of various forms of extracurricular independent work

Study of primary and secondary literature on the discipline is conducted on a regular basis in the context of each topic to prepare for the midterm assessment on the discipline "Assessment of the cost of innovations". The list of basic and additional literature on the discipline is given in paragraph 4 of this work program.

Guidelines for preparation for midterm assessment The midterm assessment in the discipline "Assessment of the cost of innovations" is held in the form of an exam. An approximate list of questions for the exam in the discipline "Assessment of the cost of innovations" and the criteria for assessing the student's answer for the purposes of assessing the achievement of the declared indicators of competence formation are provided in the FOS for the discipline in paragraph 7 of this work program.

The student is admitted to the midterm assessment in the discipline regardless of the results of the current academic performance monitoring.

7. Evaluation Fund

7.1 Methods of monitoring and assessing learning outcomes

Code and name competencies	**Achievement indicators competencies**	**Control methods and evaluation**
PC - 2 Capable count on And analyze economic performance indicators activities organizations (Task type professional activities - settlement and economic)	IPC- 2.1. Substantiates and applies statistical, economic-mathematical, marketing methods of studying the external environment and activities of the organization, carries out calculations of financial and economic indicators, including using standard methods and regulatory legal acts IPC-2.4. Calculates economic indicators efficiency organizations labor, production products, implementation of innovative technologies and determines reserves for increasing efficiency activities organizations, directions for improving forms of labor organization and management IPK-2.7. Analyzes And interprets financial, accounting information, contained V reporting organizations, And use information obtained for making management decisions	Intermediate certification: exam Current control: survey and decision tasks on practical classes; testing

7.2 Scale and criteria for assessing learning outcomes

7.2.1. Criteria for assessing the answer to the exam

(formation of competence PC-2, indicators IPC-2.1, IPC-2.4, IPC-2.7) **"5" (excellent):** the student demonstrates excellent theoretical knowledge, practical skills, knows the terms, makes reasoned conclusions and generalizations, gives examples, demonstrates fluency in monologue speech and the ability to quickly respond to clarifying questions.

"4" (good):the student demonstrates good theoretical knowledge, practical skills, knows the terms, makes reasoned conclusions and generalizations, gives examples, demonstrates fluency in monologue speech, but at the same time makes minor mistakes that he quickly corrects independently or with minor correction from the teacher.

"3" (satisfactory):the student demonstrates satisfactory theoretical knowledge, demonstrates poorly developed skills in analyzing phenomena and processes, insufficient ability to make reasoned conclusions and give examples, demonstrates insufficient fluency in monologue speech, terms, logic and consistency of presentation, makes mistakes that can only be corrected with correction from the teacher.

"2" (unsatisfactory):the student demonstrates ignorance of theoretical fundamentals of the subject, lack of practical skills, cannot make reasoned conclusions and give examples, demonstrates poor command of monologue speech, does not know the terms, demonstrates a lack of logic and consistency in presentation, makes mistakes that cannot be corrected by the teacher, refuses to answer additional questions.

7.2.2. Criteria for assessing the student's work in practical classes (formation of competence PC-2, indicators IPC-2.1, IPC-2.4, IPC-2.7) **"5" (excellent):**all tasks provided for in the practical plan have been completed classes, the student answered all test questions clearly and without errors, and worked actively in practical classes.

"4" (good):all tasks provided for in the practical plan have been completed classes, the student answered all the test questions with corrective comments from the teacher and worked quite actively in practical classes.

"3" (satisfactory):all tasks provided for in the plan have been completed practical classes, with comments from the teacher; the student answered all test questions with comments.

"2" (unsatisfactory):the student did not complete it or completed it incorrectly practical tasks provided for in the practical lesson plan; the student answered the test questions with errors or did not answer the test questions.

7.2.3. Test results evaluation criteria

(development of competence PC-2, indicators IPC-2.1, IPC-2.4, IPC-2.7) Testing is assessed in accordance with the percentage of correct answers given by the student to the test questions.

Standard scale of compliance of test results with the assigned score:

- "excellent" - over 85% correct answers; "good" - from
- 70.1% to 85% correct answers; "satisfactory" - from 55.1%
- to 70% correct answers;

- from0 to 55% correct answers – “unsatisfactory”

"5" (excellent):the test taker demonstrates excellent theoretical knowledge, has terms and has the ability to quickly respond to test questions.

"4" (good):the test taker demonstrates good theoretical knowledge, has most terms and has the ability to quickly respond to test questions.

"3" (satisfactory):the test taker demonstrates satisfactory theoretical knowledge, has a command of basic terms and concepts.

"2" (unsatisfactory):the test taker lacks theoretical knowledge, He doesn't know the terminology and responds slowly to test questions.

7.3 Evaluation tools

7.3.1. Current control

(formation of competence PC-2, indicators IPC-2.1, IPC-2.4, IPC-2.7)

Examples of problems to be solved in practical classes:

1. The process of mastering a new woodworking machine is based on manufacturing 4 batches of products and ends with the release of 64 products. The planned labor intensity of product manufacturing upon completion of mastering is 2000 standard hours/piece. The mastering curve is characterized by the steepness of the mastering curve indicator equal to 0.5 calculated based on the extrapolation method. The planned labor intensity per month is 15540 standard hours/month. Determine: the coefficient of mastering a new type of product; the labor intensity of manufacturing each batch of new machines; the planned volume of labor costs for the entire mastering period; the volume of necessary and additional labor costs; the planned duration of the mastering period. Plot the mastering curve, characterizing the dynamics of change in the labor intensity of manufacturing a new type of machine.

2. The development of the new model of truck is expected to be carried out in for one and a half years. It is planned to release trial lots of the new product quarterly. The development coefficient determined by the analogy method is expected to be 0.7. The cost of manufacturing a car in the first year of production is 1,740 thousand rubles (with specific conditionally fixed costs amounting to 1,480 thousand rubles). It is assumed that during the development period, specific conditionally fixed costs will decrease by 20%. The dynamics of the decrease in variable costs corresponds to the nature of the decrease in labor intensity of a unit of production. Determine the design cost of manufacturing a truck.

3. The company set the wholesale price of a new measuring device at Upon reaching the design output of the CPR = 1000 rubles, the planned profitability level is 20%. The planned design labor intensity is 100 standard hours, the duration of the development period is 4 months. The development process is characterized by the value b = 0.5. The following are taken into account in the composition of conditionally variable costs: basic and additional wages of workers, deductions for social security. Design costs for the basic wages of workers are 1 ruble per hour, additional - 25% of the basic. Fixed costs are reduced during the development period by 5% per month. Determine the labor intensity and cost of the device at the beginning of the development period.

4. The process of mastering a new type of high-tech product is completed release of 16 items. The development coefficient is 0.7. Costs of basic materials and purchased parts are 3,000 rubles/item, additional wages of key workers are 20%, general production costs are 200% of the basic wages of key workers, general shop costs are 50%. Labor intensity of manufacturing the first item is 160 standard hours.

Average wage rate is 80 rubles/hour. Determine the production cost of one product at the beginning of development and in serial production.

5. The enterprise plans to implement an innovative project related to production of a new type of product. The project provides for the following parameters of the process of development and release of new products, calculated on the basis of progressive standards, the production potential of the enterprise and the market situation (tables 1-2): the projected volume of output of new products is Nk pieces, the labor intensity of manufacturing a unit of new products by the end of development is tk standard hours, the number of doublings of the output of new products during the development period is A, the cost of a unit of new products at the initial stage of the development process is S1 rubles, the volume of conditionally fixed costs at the initial stage of the development process is Zps1 rubles. It is planned to reduce conditionally fixed costs by the end of the development period by -Zps percent. The labor intensity of manufacturing similar products after each double increase in production volume, the coefficients of continuity and novelty are known.

Define:

1) the labor intensity of a unit of new product at each stage of the development process;

2) the production volumes of each batch of new products for the entire development period;

3) the total labor intensity of manufacturing new products planned for release in development period;

4) the volume of increased costs, showing the impact of the development process on labor intensity of production;

5) the projected cost of one unit of new product.

6. Estimate the cost of a license for an invention using the following data. Volume sales of goods manufactured on the old equipment is 10,000 units per year. The price of one unit of goods is 8,000 rubles. The use of new equipment allows us to reduce the price by 12%, and increase the production volume by 50% of the original. The net profit margin is taken to be 0.1. The expected sales period is 5 years. The interbank interest rate is 10% per annum, the expected average annual inflation rate for the entire duration of the transaction will be 8.5%, the risk premium is 16% per annum.

7. To implement an innovative project, it is necessary to provide new production process with raw materials, electricity and components. The reliability of the raw material supplier (the probability of timely delivery of high-quality raw materials) is estimated at 95%, the supplier of components - 90%. The reliability of the power plant is 97%. All risks are manifested in the area of logistical supply of the innovative project. What is the overall degree of risk?

8. The innovation project is implemented in three stages. The probability of project termination at the 1st stage - 0.5, at the 2nd - 0.3, at the 3rd - 0.1. Losses at the 1st stage will be 200 thousand rubles, at the 2nd - 400 thousand rubles, at the 3rd - 300 thousand rubles. What is the degree of risk and the risk measure of the entire project?

Examples of test tasks:

1. What type of production preparation does the technological regulation include:

A) material;

B) technical;

B) logistical; D) regulatory.

2. Environmental performance indicators (for wastewater and gas and dust emissions) of the new production is indicated:

A) in the technological regulations; B)
in the technical conditions;
B) in industry standards.

3. The cost of commissioning works is included: A) in
the cost of construction and installation works; B) in
the cost of equipment;
B) in the cost of production.

4. Organizational preparation of new production is associated with:
A) a plan for the new organization and operation of auxiliary units and production facilities;
B) selection and training of personnel for new production; C)
revision of the existing management structure; D) justification and
development of a system of norms and standards.

5. Which of the listed objects are objects of intellectual property?
property:
A) computer software; B)
trademark;
B) a new paper-making machine; D)
know-how;
D) computer hardware.

6. Means of product individualization: A)
barcode;
B) trademark;
B) industrial design; D)
product layout.

7. Under what type of license can the seller (licensor) simultaneously sell
license to several buyers (licensees):
A) simple;
B) exceptional;
B) complete.

8. Average term of a license agreement: A) 10–15
years;
B) 3-5 years;
B) 5-10 years.

7.3.2. Interim assessment

(formation of competence PC-2, indicators IPC-2.1, IPC-2.4, IPC-2.7)

1. What activities are carried out by foreign corporations in the context of innovation activities?
2. Give a definition of innovation?
3. Novelty and innovation, how do they differ from each other?
4. What types of innovations do you know in terms of radicality?
5. Provide a description of the main stages of the innovation process?
6. What is the cyclical nature of the innovation process and how does it manifest itself?
7. Provide a description of the innovation strategy?

8. What methods of choosing an innovation strategy exist depending on trends in the development of world science and technology?

9. Project portfolio, what is its purpose and goals?

10. Methods for choosing an innovation strategy depending on market positions companies?

11. What organizational structure is the basis of the innovation process?

12. What are integrated innovation structures? Consortium, its features?

13. Definition of scientific activity?

14. How is scientific research developed and financed in Russia?

15. In which scientific areas and projects is Russia among the world leaders? leaders?

16. In what scientific areas does Russia lag behind Western countries?

17. What types of scientific and innovative projects do you know?

18. What are grants? Who awards them and for what?

19. What are the features of scientific personnel management?

20. How can we effectively stimulate and motivate research workers?

21. What types of production preparation do you know? What are their features?

22. What types of work are associated with the organizational preparation of a new production?

23. What scientific principles are characteristic of functional cost analysis?

24. What functions are highlighted in a product during optimization?

25. What are the criteria for choosing the best option when conducting an FSA?

26. What criteria are used to segment the market?

27. What pricing methods do you know?

28. What is the economic essence of the discount indicator in the pure cash flow method? modern meaning?

29. Provide a description of sales methods?

30. Means of product individualization, their characteristics?

31. What types of license agreements do you know?

32. What are the main types of payments provided for in license agreements?

33. Indicators of comparative economic efficiency of innovations projects?

34. Indicators of the overall (absolute) economic efficiency of innovations projects?

35. What does the rate of return of an innovative project show?

36. How to use the internal rate of return method for comparative performance analysis?

capital investments?

37. Formation of new innovation centers (China, Southeast Asian countries, Brazil, India)?

38. How is cash flow forecasting done to assess performance? investments?

39. What are the main types of risks inherent in an investment project?

40. What approaches to risk analysis in the investment process do you know? design?