KSPEU

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

Federal State Budgetary Educational Institution of Higher Education
«KAZAN STATE POWER ENGINEERING UNIVERSITY»
(FSBEI HE «KSPEU»)

APPROVED
Director of the Institute of Digital Technologies and Economics
Zainullin R.R.
«24» February 2026

WORKING PROGRAM OF THE DISCIPLINE

B1.V.ED.01.01.05 System analysis in management

(Code and name of the discipline in accordance with the RUP)

Direction of training	38.03.02 Management
Qualification	Bachelor's Degree

Kazan, 2026

The program was developed by:

Name of the department	Position, academic degree, academic rank	Full name of the developer
Management	Associate Professor, Candidate of Social Sciences, Associate Professor	Burganova T.A..

Coordination	Name of department	Date	Protocol number	Signature
Approved	Department of "Management"	10.02.2026	Protocol Num.5	_____ Head department management, doctor of social sciences, professor Makhiyanova A.V.
Agreed	Department of "Management"	10.02.2026	Protocol Num.5	_____ Head department management, doctor of social sciences, professor Makhiyanova A.V.
Agreed	Educational and Methodological Council of the Institute	24.02.2026	Protocol Num.6	_____ Director, Ph.D., Associate Professor, Zainullin R.R.
Approved	Academic Council of the Institute	24.02.2026	Protocol Num.6	_____ Director, Ph.D., Associate Professor, Zainullin R.R.

1. The purpose, objectives and planned learning outcomes of the discipline

The objective of the course B1.V.ED.01.01.05 "System Analysis in Management" is to introduce students to the key concepts of systems analysis and provide a basic understanding of systems as management objects, become familiar with the theoretical foundations of systems research and problem-solving methodology, and develop skills in solving logical problems that contribute to the professional development of future managers.

Objectives: To introduce students to the concepts of a systems approach for its application in organizational management and the use of information necessary for navigating the company's key current problems; to study the methodology of systems analysis, classification, and the structural and dynamic properties of systems.

Competencies and indicators developed in students:

Competency code and name	Indicator code and name	Planned learning outcomes for the discipline (knowledge, ability, mastery)
PC – 1 Able to analyze the effectiveness of the existing management structure of the organization in order to develop proposals for its improvement, in accordance with the strategy implemented by the organization, based on advanced information technologies.	PC -1.3 Uses advanced information technologies to process and analyze information in order to organize work on designing methods for implementing management processes.	*Knowledge:* modern information technologies for processing and analyzing information to organize work on designing methods for implementing management processes. *Ability:* analyze the effectiveness of an organization's current management structure with the goal of improving it in line with the organization's strategy. *Possess:* skills in analyzing the effectiveness and formulating proposals for improving the organization's current management structure.

2. The discipline's place in the educational program's structure

Previous disciplines (modules), practical training, research, etc.: Strategic Management, Development of Management Decisions.

Subsequent disciplines (modules), practical training, research, etc.: Industrial Internship (pre-graduation internship).

3. Course Structure and Content

3.1. Course Structure

For full-time study

Type of academic work	Total credits	Total hours	Semesters	
			7	8
TOTAL WORK INTENSITY OF THE DISCIPLINE	7	252	180	72
CONTACT WORK*	2	68	44	24
AUDITORIUM WORK	2	68	44	24
Lectures		26	14	12
Practical (seminar) classes		42	30	12
Laboratory work	-	-	-	-
INDEPENDENT STUDENT WORK	4	148	100	48
Review of course material	4	148	100	48
Course project	-	-	-	-
Coursework	-	-	-	-
Preparation for midterm assessment	1	36	36	0
Interim assessment:			E	C
			-	-

3.2. The content of the discipline, structured by sections and types of classes

Type of academic work	Total credits	Total hours	Semesters	
			E	
TOTAL WORK INTENSITY OF THE DISCIPLINE	7	252	252	
CONTACT WORK*	1,4	50	50	
AUDITORIUM WORK	1,4	50	50	
Lectures	0,5	20	20	
Practical (seminar) classes	0,9	30	30	
Laboratory work	-	-	-	
INDEPENDENT STUDENT WORK	5,4	193	193	
Review of course material	5,4	193	193	
Course project	-	-	-	
Coursework	-	-	-	
Preparation for midterm assessment	0,2	9	9	
Interim assessment:			Э	
			-	-

3.2. The content of the discipline, structured by sections and types of classes

Sections of the discipline	Total hours	Distribution of labor intensity by types of academic work					Forms and types of control	Indices of indicators of developing competencies
		lectures	lab. worker	practical classes	independent work	control		
Section 1	70	6		14	50		CC 1	PC-1.3k, PC-1.3a, PC-1.3p
Section 2	74	8		16	50		CC 2	PC-1.3k, PC-1.3a, PC-1.3p
Exam	36					36	**EM 1**	PC-1.3k, PC-1.3a, PC-1.3p
Total for Semester 7	**180**	**14**	**-**	**30**	**100**	**36**		
Section 3	36	6	-	6	24		CC 3	PC-1.3k, PC-1.3a, PC-1.3p
Section 4	36	6		6	24		CC 4	PC-1.3k, PC-1.3a, PC-1.3p
Credit	0					0	**EM 2**	PC-1.3k, PC-1.3a, PC-1.3p
Total for Semester 8	**72**	**12**	**-**	**12**	**48**			
TOTAL	**252**	**26**	**-**	**42**	**148**	**36**		

3.3. Course Content

Section 1. General Systems Theory.

Topic 1.1. The Concept of a System. The Organization as a System.

Topic 1.2. The Categorical Framework of the Systems Approach and Analysis.

Section 2. The Systems View of an Organization.

Topic 2.1. The Scientific Management School's Views on the Systems Nature of Management.

Topic 2.2. Processes, Systems, and Situational Approaches to the Systems Nature of Management.

Section 3. Strategic Planning: A Model for Implementing the Systems Approach.

Topic 3.1. Applications of Systems Analysis Tools in Strategic Planning.

Topic 3.2. System, Information, and Knowledge. Strategic Information Base.

Section 4. Methods of Systems Analysis.

Topic 4.1. Methods for Activating the Intuition and Experience of Specialists.

Topic 4.2. Special and mixed methods of systems analysis.

3.4. Thematic plan for practical classes

Section 1.

1) Properties characterizing the system's relationship with the external environment.

2) System properties characterizing the parameters of the system's functioning and development.

3) Processes, systems, and situational approaches.

Section 2.

4) Systems approach to management. Classification of systems.

5) Rules for applying the systems approach.

Section 3.

6) Strategic and operational management systems.

7) Comparison of long-term and strategic management.

Section 4.

8) Delphi method.

9) Goal tree decomposition technique.

3.5. Thematic plan of laboratory work

This type of work is not provided for in the curriculum.

3.6. Course project/coursework

This type of work is not provided for in the curriculum.

4. Оценивание результатов обучения

Learning outcomes in this discipline are assessed through ongoing monitoring and midterm assessments, conducted using a point-rating system (PRS).

Learning outcomes assessment scale for this discipline:

Competency Code	Competency Indicator Code	Planned learning outcomes for the discipline	Level of development of the competency indicator			
			High	Average	Below Average	Low
			from 85 to 100	from 70 to 84	from 55 to 69	from 0 to 54
			Rating scale			
			excellent	good	satisfactory	not satisfactory
			passed			failed
PC-1 Able to analyze the effectiveness of the existing management structure of the organization in order to develop proposals for its improvement, in accordance with the strategy implemented by the organization	PC-1.3 Uses advanced information technologies to process and analyze information in order to organize work on designing methods for implementing management processes.	know:				
		modern information technologies for processing and analyzing information for the purpose of organizing work on designing methods for implementing management processes	Fully knowledgeable of modern information technologies for processing and analyzing information in order to organize work on designing methods for implementing management processes	Has a fairly comprehensive knowledge of modern information technologies for processing and analyzing information in order to organize work on designing methods for implementing management processes	Poor knowledge of modern information technologies for processing and analyzing information for the purpose of organizing work on designing methods for implementing management processes	Does not know modern information technologies for processing and analyzing information for the purpose of organizing work on designing methods for implementing management processes
		be able to:				
		to analyze the effectiveness of the organization's current management structure, with the aim of improving it	Fluently able to analyze the effectiveness of the current management structure of the organization, with the aim of improving	Able to analyze the effectiveness of the organization's current management structure with the aim of improving it in accordance with the	Poor ability to analyze the effectiveness of the organization's current management structure with the	Does not know how to analyze the effectiveness of the current management structure of the organization, with

		in accordance with the organization's strategy being implemented	it in accordance with the implemented strategy of the organization	organization's strategy being implemented	aim of improving it in accordance with the organization's strategy being implemented	the aim of improving it in accordance with the implemented strategy of the organization
		possess:				
, based on advanced information technologies .		skills in analyzing the effectiveness and formulating proposals for improving the current management structure of the organization	Demonstrated skills in analyzing the effectiveness and formulating proposals for improving the current management structure of the organization	Basic skills in analyzing performance and formulating proposals for improving the organization's current management structure have been demonstrated.	Has a minimum set of skills to analyze the effectiveness and formulate proposals for improving the current management structure of the organization	Basic skills in analyzing effectiveness and formulating proposals for improving the organization’s current management structure have not been demonstrated.

Assessment materials for ongoing monitoring and midterm assessment are provided in the Appendix to the course curriculum.

A complete set of assignments and materials required for assessing learning outcomes in this course is kept at the developer's department.

5. Educational, methodological, and informational support for the course

5.1. Educational, methodological support

5.1.1. Main literature

1. Tarasenko, F. P., Applied Systems Analysis: a tutorial / F. P. Tarasenko. - Moscow: KnoRus, 2022. - 321 p. - ISBN 978-5-406-09439-6. - URL: https://book.ru/book/943112. - Text: electronic.

2. Popov, V. N., Systems Analysis in Management: a tutorial / V. N. Popov, V. S. Kasyanov, I. P. Savchenko. - Moscow: KnoRus, 2023. - 297 p. - ISBN 978-5-406-10844-4. - URL: https://book.ru/book/946954. - Text: electronic.

3. Systems analysis in management: textbook / K. S. Drogobytskaya, S. G. Zbrishchak, N. I. Malyshev [et al.]; under the general editorship of I. N. Drogobytsky. - Moscow: KnoRus, 2023. - 677 p. - ISBN 978-5-406-10308-1. - URL: https://book.ru/book/947352. - Text: electronic.

5.1.2. Further reading

1. Tsvetkov, V. Ya. Fundamentals of the Theory of Complex Systems: a textbook / V. Ya. Tsvetkov. - St. Petersburg: Lan, 2022. - 152 p. - ISBN 978-5-8114-3509-8. - Text: electronic // Lan: electronic library system. - URL: https://e.lanbook.com/book/206375.

2. Matveev, A. I. Mathematical Methods of Systems Analysis: a textbook for universities / A. I. Matveev. - 2nd ed., reprinted - St. Petersburg: Lan, 2021. - 128 p. - ISBN 978-5-8114-6686-3. - Text: electronic // Lan: electronic library system. — URL: https://e.lanbook.com/book/151666.

5.2. Information Support

5.2.1. Electronic and Internet Resources

Num.	Electronic and online resources	Link
1	Electronic library system "Lan"	https://e.lanbook.com/
2	Electronic library system "ibooks.ru"	https://ibooks.ru/
3	Electronic library system "book.ru"	https://www.book.ru/
4	Encyclopedias, dictionaries, reference books	http://www.rubricon.com
5	Open Education Portal	http://npoed.ru
6	Single-access window to educational resources	http://window.edu.ru

5.2.2. Professional databases / Information and reference systems

Num.	Professional Databases / Information and Reference Systems	Address	Access mode
1	Name of Professional Databases	http://pravo.gov.ru	
2	Official Internet Portal of Legal Information	http://consultant.ru	
3	Consultant Plus Legal Reference System	http://garant.ru	

5.2.3. Licensed and freely distributed software of the discipline

Num.	Name of the software	Distribution method (licensed/free)	Details of supporting documents
1	Windows 7 Professional (Pro)	licensed	Agreement No. 2011.25486 dated November 28, 2011, Soft Line Trade CJSC. Non-exclusive right. Unlimited
2	Windows 7 Professional operating system (FSTEC certified).	licensed	Agreement for Person No. 0000/20, TaxNet Service CJSC. Non-exclusive right. Unlimited.
3	Software: Windows 10	licensed	Agreement No. Tr096148 dated September 29, 2020, Softline Trade LLC. Non-exclusive right. Until September 14, 2021
4	Office Standard 2007 Russian OLP NL Academic Edition+	licensed	Agreement No. 21/2010 dated May 4, 2010, Soft Line Trade CJSC. Non-exclusive right. Unlimited.
5	Office Professional Plus 2007 Russian OLP NL Academic Edition	licensed	Agreement No. 21/2010 dated May 4, 2010, Soft Line Trade CJSC. Non-exclusive right. Unlimited.
6	LMS Moodle	free	Free license. Non-exclusive right. Perpetual.
7	Chrome Browser	free	Free license. Non-exclusive right. Perpetual.

6. Logistical support of discipline

Num.	Type of Academic Work	Name of special rooms and rooms for independent work	Equipment for specialized rooms and rooms for independent work
1	Lectures	Classroom for lecture-type classes	Screen, multimedia projector, portable equipment: laptop.
2	Practical Classes	Classroom for seminar-type classes, group and individual consultations, ongoing assessment, and midterm assessment	Classroom board, screen on a tripod, projector, computer with monitor (8 units).
3	Independent Student Work	Computer lab with Internet access B-600a	All-in-one computers (30 units), video surveillance system (6 video cameras), projector, screen.
		Library reading room	Projector, portable screen, thin clients (13 units), computers (5 units)

7. Features of the organization of educational activities for people with disabilities and people with disabilities

Individuals with disabilities (IHDs) and those with disabilities have the opportunity to move freely between academic and laboratory buildings, access all floors of academic and laboratory buildings, and study in classrooms and other spaces, taking into account their psychophysical development and health status.

Accessibility to all academic spaces is provided for IHDs and those with

musculoskeletal disorders. Information on special conditions created for IHDs and those with disabilities is available on the University website www//kgeu.ru. Technical assistance is available from an assistant, as well as sign language and tactile sign language interpreters.

To adapt reference and educational material for IHDs and those with impaired hearing, the following conditions are provided:

- To improve orientation in the classroom, signals are used to announce the start and end of classes (the word "bell" is written on the board);
- the teacher attracts the attention of a hearing-impaired student with a gesture (a hand is placed on the shoulder, a gentle tap is made);
- when speaking with a student, the teacher looks at them, speaks clearly, in short sentences, and allows for lip reading.

Compensation for speech and intellectual development difficulties in hearing-impaired students is achieved through:

- the use of diagrams, charts, drawings, and computer presentations with hyperlinks that comment on individual image components;
- regular use of exercises to graphically highlight the essential features of objects and phenomena;
- providing the student with the opportunity to receive targeted consultations via email as needed.

To ensure that reference, educational, and outreach materials provided by the educational program for the chosen field of study are accessible to individuals with disabilities and visual impairments, the following conditions are ensured:

- the official website is adapted to accommodate the special needs of individuals with visual impairments, and large-font reference information on the class schedule is provided;
- the teaching staff and their interlocutor (if necessary), present at the class, introduce themselves to the student, and each time the person to whom the teaching staff is addressing is identified;
- The actions, gestures, and movements of the teaching staff are commented on briefly and clearly;
- Printed information is provided in large font (at least 18 points) and is fully audible;
- The required level of lighting in the rooms is ensured;
- The opportunity to use computers during classes and the right to record explanations on a voice recorder (at the students' discretion) is provided.

The format for conducting ongoing and midterm assessments for students with disabilities is determined by the teaching staff in accordance with the curriculum. If necessary, students with disabilities, taking into account their individual psychophysical characteristics, are given the opportunity to complete midterm assessments orally, in writing on paper, on a computer, in the form of a test, etc., or are given additional time to prepare a response.

8. Methodological recommendations for teachers on organizing educational work with students.

Methodological support for the student development process is one of the determining factors for high-quality education. By demonstrating high professionalism, erudition, a clear civic position, self-discipline, and a creative approach to solving professional problems, a university professor contributes to the development of a well-rounded personality throughout the educational process.

When implementing this course, a professor can use the following educational methods:

- Methods of shaping individual consciousness (conversation, debate, suggestion, instruction, control, explanation, example, self-control, storytelling, advice, persuasion, etc.);
- Methods of organizing activities and shaping behavioral experience (tasks, public opinion, pedagogical requirements, assignments, training, habituation, creating educational situations, training, exercises, etc.);
- Methods of motivating activity and behavior (approval, encouragement of social activity, censure, creating situations of success, creating situations for emotional and moral experiences, competition, etc.)

When implementing this course, the teacher must consider the following areas of educational activity:

Civic and Patriotic Education:

- developing in students a holistic worldview, Russian identity, respect for their family, society, the state, the spiritual, moral, and sociocultural values accepted in the family and society, and respect for the national, cultural, and historical heritage, and fostering a desire to preserve and develop it;
- developing students' active civic stance based on the traditional cultural, spiritual, and moral values of Russian society, to enhance their ability to responsibly exercise their constitutional rights and responsibilities;
- developing students' legal and political awareness, expanding their constructive participation in decision-making affecting their rights and interests, including through various forms of self-organization, self-government, and socially significant activities;
- developing motivations, moral, and meaningful attitudes that enable them to resist extremism, xenophobia, discrimination based on social, religious, racial, and national characteristics, interethnic and interfaith intolerance, and other negative social phenomena.

Spiritual and moral education:

- - fostering a sense of dignity, honor, and honesty, conscientiousness, and respect for parents, teachers, and the elderly;
- - developing principles of collectivism and solidarity, a spirit of mercy and compassion, and a habit of caring for people in difficult life situations;
- - fostering solidarity and a sense of social responsibility toward people with disabilities, overcoming psychological barriers to people with disabilities;
- - developing an emotionally rich and spiritually elevated attitude toward the world, and the ability and skill to share one's aesthetic experience with others.

Cultural and educational education:

- developing an aesthetic worldview;

- fostering respect for the cultural values of one's hometown, region, and country;

- enhancing students cognitive activity.

Scientific and educational education:

- developing a scientific worldview in students;

- developing the ability to acquire knowledge;

- developing skills in analyzing and synthesizing information, including in the professional field.

Changes and approvals for the new academic year

Num	Section number of amendments	Date of modification	Contents of the changes	"Agreed" Head of the Department implementing the discipline	"Agreed" Chairman of the Institute (Faculty)'s Teaching and Methods Department, which includes the graduating department
1	2	3	4	5	6
1					
2					
3					

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EVALUATION MATERIALS
for the discipline

B1.V.ED.01.01.05 System analysis in management

(Name of the discipline in accordance with the curriculum)

Kazan, 2026

Assessment materials for this course are designed to evaluate learning out-comes against competency achievement indicators.

Learning outcomes for this course are assessed through ongoing assessment (CA) and midterm assessment, conducted using a point-rating system (PRS)

1. Technological map

Semester 7

Section name	Forms and types of control	Rating indicators					Interim assessment
		I current control	Additional points to CC1	II current control	Additional points to CC2	Total	
Section 1. "General Systems Theory"	**CC1**	**15**	**0-15**			**15-30**	**15-30**
Test or written survey		10					
Independent work report		5					
Section 2. "Systemic View of an Organization"	**CC2**			**15**	**0-15**	**15-30**	**15-30**
Test or written survey				10			
Independent work report				5			
Midterm assessment (credit)	**EM1**						**0-45**
Midterm assessment assignment							0-15
Written based on the exam tickets							0-30

Semester 8

Section name	Forms and types of control	Rating indicators					Interim assessment
		I current control	Additional points to CC3	II current control	Additional points to CC4	Total	
Section 3. "Strategic Planning - A Model for Implementing a Systems Approach"	**CC 3**	**15**	**0-15**			**15-30**	**15-30**
Test or Written Survey		10					
Independent Work Report		5					
Section 4. "Systems Analysis Methods"	**CC 4**			**15**	**0-15**	**15-30**	**15-30**
Test or Written Survey				10			
Independent Work Report				5			
Midterm Assessment (Credit)	**EM 2**						**0-45**
Midterm Assessment Assignment							0-15
Written based on student tickets							0-30

2. Assessment materials for ongoing monitoring and midterm assessment

Learning outcome assessment scale for the discipline:

Competency Code	Competency Indicator Code	Planned learning outcomes for the discipline	Level of development of the competency indicator			
			High	Average	Below Average	Low
			from 85 to 100	from 70 to 84	from 55 to 69	from 0 to 54
			Rating scale			
			excellent	good	satisfactory	not satisfactory
			passed			failed
PC-1 Able to analyze the effectiveness of the existing management structure of the organization in order to develop proposals for its improvement, in accordance with the strategy implemented by the organization, based on advanced	PC-1.3 Uses advanced information technologies to process and analyze information in order to organize work on designing methods for implementing management processes.	know:				
		modern information technologies for processing and analyzing information for the purpose of organizing work on designing methods for implementing management processes	Fully knowledgeable of modern information technologies for processing and analyzing information in order to organize work on designing methods for implementing management processes	Has a fairly comprehensive knowledge of modern information technologies for processing and analyzing information in order to organize work on designing methods for implementing management processes	Poor knowledge of modern information technologies for processing and analyzing information for the purpose of organizing work on designing methods for implementing management processes	Does not know modern information technologies for processing and analyzing information for the purpose of organizing work on designing methods for implementing management processes
		be able to:				
		to analyze the effectiveness of the organization's current management structure, with the aim of improving it in accordance with the organization's	Fluently able to analyze the effectiveness of the current management structure of the organization, with the aim of improving it in accordance with the implemented	Able to analyze the effectiveness of the organization's current management structure with the aim of improving it in accordance with the organization's strategy being	Poor ability to analyze the effectiveness of the organization's current management structure with the aim of improving it in accordance with	Does not know how to analyze the effectiveness of the current management structure of the organization, with the aim of improving it in

		strategy being implemented	strategy of the organization	implemented	the organization's strategy being implemented	accordance with the implemented strategy of the organization
		possess:				
information technologies.		skills in analyzing the effectiveness and formulating proposals for improving the current management structure of the organization	Demonstrated skills in analyzing the effectiveness and formulating proposals for improving the current management structure of the organization	Basic skills in analyzing performance and formulating proposals for improving the organization's current management structure have been demonstrated.	Has a minimum set of skills to analyze the effectiveness and formulate proposals for improving the current management structure of the organization	Basic skills in analyzing effectiveness and formulating proposals for improving the organization’s current management structure have not been demonstrated.

Assessment materials for ongoing monitoring and midterm assessment are provided in the Appendix to the course syllabus.

A complete set of assignments and materials required for assessing learning outcomes in this course is kept at the developer's department.

An "**excellent**" grade is awarded for completing the test assignments; in-depth knowledge of modern information technologies and methods for analyzing the effectiveness of the organization's current management structure with the goal of improving it in line with the organization's strategy; and complete and meaningful answers to the questions (theoretical and practical assignments).

A "**good**" grade is awarded for completing the test assignments; understanding of methods for analyzing the effectiveness of the organization's current management structure; and sufficiently complete answers to the questions (theoretical and practical assignments).

A "**satisfactory**" grade is awarded for completing the test assignments, poor answers to the theoretical questions, or failure to complete the practical assignment.

The grade “**unsatisfactory**” is given for weak and incomplete completion of test assignments, weak and incomplete answers to the theoretical questions of the exam, and failure to complete the practical assignment.

3. List of assessment tools

Brief description of the assessment tools used for ongoing monitoring of student progress and midterm assessment in the subject:

Name of the assessment tool	Brief description of the assessment tool	Description of the assessment tool
Survey by sections (topics)	Knowledge of the basic concepts of the topic/section/discipline	List of definitions of key concepts of the topic/discipline
Test (Test)	A system of standardized tasks that allows for the automation of the procedure for measuring the level of student knowledge and skills	Set of test tasks

4. List of assessment tasks or other materials necessary for assessing knowledge, skills, and abilities characterizing the stages of competency development during the course.

Assignment examples.

For ongoing assessment CC1:

Competency tested: PC-1, PC-1.3.

Examples of test questions.

Question	*Answer options*
Which definition of a system is the most complete?	A system is an integral set of elements and parts exposed to the influence of the external environment.
	A system is an integral entity consisting of interacting elements and parts and possessing properties that are not reducible to the properties of these parts.
	A system is an integral set of elements isolated from the external environment for a specific purpose within a certain time interval.
Indicate the main classes of systems	Material and artificial
	Natural and abstract
	Material and abstract
	Artificial and generalizing

A complete set of assignments and materials required for assessing learning outcomes in this course is stored in the developer's department and contains 50 test questions.

Questions for the current survey for Section 1:

1. Describe the characteristics of human reliability in a control system.
2. List the characteristics of the category "reliability of a socio-economic system."
3. What is meant by system recoverability?
4. What is meant by system availability?
5. What is the influence of cybernetics on the study of the reliability of socio-economic systems?
6. What approaches exist in the study of the reliability of socio-economic systems?

7. Is the use of the term "ideal organization" correct? Why?
8. What is the essence of the category "reliability"?

For ongoing assessment CC2:
Competency tested: PC-1, PC-1.3.
Examples of test questions.

Question	*Answer options*
What type of organization can be classified if the level of social ties in it is weak, but the level of economic ties is strong?	Unstable
	Weak
	Moderate
	Conflictual
	Strong
	Informal
For which organizations is a linear diagram of organizational relationships recommended?	Strong
	For small organizations with highly professional and authoritative leaders
	For small organizations or divisions of medium-sized organizations with stable products and a stable market
	For small organizations or divisions of medium-sized organizations that require constant production adjustments
	For branch structures of organizations and when confidentiality in the activities of each division is required
	For large organizations with a pronounced division of labor
	When the work of leading specialists is of a consultative nature

A complete set of assignments and materials required for assessing learning outcomes in this course is stored in the developer's department and contains 50 test questions.

Questions for the current survey in Section 2:
1. Why should the management of any objects (especially socio-economic ones) be based on systems theory?
2. What is the essence of the systems approach and how does it differ from other approaches?
3. Is it legitimate to include functional, marketing, reproduction, and other approaches within the systems approach?
4. What components is a system divided into?
5. Why is a system's input not related to its external environment?
6. What is systems analysis?

For the EM-1 midterm assessment:
The EM-1 midterm assessment is conducted using 20 questions, each containing two questions.
Question examples:
Question No. 1
1. The essence of the systems approach and its differences from other approaches. Example.

2. Properties of a system that characterize the parameters of its functioning and development.

Question No. 2

1. Classification of systems by purpose. Example.

2. Properties of a system that characterize the methodology for setting its goals.

For ongoing assessment CC3:

Competency tested: PC-1, PC-1.3.

Examples of test questions.

Question	*Answer options*
Classify management information in an organization by the nature of its development and implementation	Planning, organizing, activating, coordinating, controlling, informing
	strategic, tactical, operational
	balanced, impulsive, inert, risky, cautious
	low, medium, high, ultra-high
	general and specific
	internal and external
t what stage of the organization's life cycle does the law of development have the greatest impact?	implementation
	insensitivity
	growth
	saturation
	maturity
	collapse
	decline
	liquidation

A complete set of assignments and materials required for assessing learning outcomes in this course is stored in the developer's department and contains 50 test questions.

Questions for the current survey in Section 3:

1. List the stages of strategic planning and describe the systems analysis methods that can assist in their implementation.

2. What is the sequence for applying the SWOT analysis matrix?

3. What is the relationship between programs, plans, policies, tactics, procedures, and rules?

4. Explain the meaning of the final stage of systems analysis: "designing an organization to achieve goals."

For ongoing assessment CC4:

Competency tested: PC-1, PC-1.3.

Examples of test questions.

Question	*Answer options*
To which group of methods	A group of methods aimed at activating the use of intuition and

for modeling complex systems does the brainstorming method belong?	experience by specialists
	A group of methods for the gradual formalization of a task
	A group of methods for the formalized representation of systems
To which group of methods for modeling complex systems do analytical methods belong?	A group of methods aimed at activating the use of intuition and experience by specialists
	A group of methods for the gradual formalization of a task
	A group of methods for the formalized representation of systems

A complete set of assignments and materials required for assessing learning outcomes in this course is stored in the developer's department and contains 50 test questions.

Questions for the current survey in Section 4:

1. Matrix models of portfolio analysis.
2. Life cycle balance matrix.
3. Matrix of mutual support of strategic business areas.
4. Preference matrix.
5. Power field balance matrix.
6. Aggregate method for assessing a firm's strategic portfolio.

For the EM-2 midterm assessment:

The EM-2 midterm assessment is conducted using 20 questions, each containing two questions.

Sample questions:

Ticket No. 1

1. Strategic planning model.
2. Management in conditions of strategic unpredictability.

Ticket No. 2

1. Methods for analyzing strategic management zones.
2. Information support for the systems analysis process in strategic management.