Federal State Autonomous Educational Institution for Higher Education PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA NAMED AFTER PATRICE LUMUMBA
(RUDN University)

Higher School of Management
(faculty/institute/academy - the higher education program developer)

COURSE SYLLABUS

Modern Strategic Analysis
(name of the discipline/module)

Recommended by the Didactic Council for the Education Field of:

38.04.02 Management
(field of studies / speciality code and title)

The study of the discipline is conducted as part of the professional program of higher education.

Engineering Management
(name (track/specialization) of professional program of higher education)

2024

1. THE GOAL OF THE DISCIPLINE

The goal of mastering the *Modern Strategic Analysis* discipline to build in students systematic mindset, theoretical and practical basis of system research in the analysis of problems and decision-making in a professional activity.

2. REQUIREMENTS FOR DISCIPLINE OUTCOMES

The mastering of the *Modern Strategic Analysis* discipline envisages building the following competencies (parts of competencies) in students:

Table 2.1. The list of competencies acquired by students in the course of the discipline (outcomes of the discipline)

Competence Code	Competence Descriptor	Competence Formation Indicators (within this discipline)
GC-1	Ability to perform critical analysis of problematic situations based on the systemic approach and to develop a plan of action	GC-1.1 Analyzes the task and singles out its basic components
		GC-1.2 Defines and prioritizes the information needed to solve the task
		GC-1.3 Searches the information to solve the task by various types of queries
		GC-1.4 Offers solutions to the problem, analyzes the possible consequences of their use
		GC-1.5 Analyzes the ways of solving problems of worldview, moral and personal nature based on the use of fundamental philosophical ideas and categories in their historical development and socio-cultural context
GPC-1.	Capability to solve professional tasks based on knowledge (at an advanced level) of economic, organizational and managerial theory, innovative approaches, generalization and critical analysis of management practices.	GPC-1.1 Has fundamental knowledge in management GPC-1.2 Can apply the fundamental knowledge of economic, organizational and managerial theory for the successful work GPC-1.3 Applies innovative approaches to solve management tasks, considering the generalization and critical analysis of best management practices GPC-1.4 Has the skills of an informed choice of methods for solving practical and research problems
GPC-2.	Capability to apply modern techniques and methods of data collection, advanced methods of their processing and analysis, including the use of smart information and analytical systems, in order to solve management and research tasks.	GPC-2.1 Masters modern techniques and methods of data collection, search, processing, analysis and evaluation of information for management problems solving GPC-2.2 Analyzes and simulates management processes in order to optimize the organization's activities GPC-2.3 Uses modern digital systems and methods in solving management and research problems solving
GPC-3.	Capability to make reasonable organizational and managerial decisions independently, evaluate their operational and organizational efficiency,	GPC-3.1 Masters the methods of making the best possible management decisions in a dynamic business environment GPC-3.2 Makes reasonable organizational and managerial decisions GPC-3.3 Evaluates the operational and

Competence Code	Competence Descriptor	Competence Formation Indicators (within this discipline)
	and social significance, ensure their implementation in terms of a complex (cross-cultural) and dynamic environment.	organizational efficiency and social significance of organizational and managerial decisions GPC-3.4 Ensures the implementation of organizational and managerial decisions in a complex (cross-cultural) and dynamic environment
		PC-1.3. Master: - ways to form efficient business communications;

3. THE PLACE OF DISCIPLINE IN HIGHER EDUCATION PROGRAM STRUCTURE

The *Modern Strategic Analysis* is a mandatory block formed by students of the B1 unit of the higher education program.

Students also master other disciplines and/or practices that contribute to achieving the planned results of mastering the *Modern Strategic Analysis* discipline.

Competence Code	Competence Descriptor	Previous Disciplines/Modules, Practices*	Subsequent Disciplines/Modules, Practices*
GC-1	Ability to perform critical analysis of problematic situations based on the systemic approach and to develop a plan of action	Managerial Economics Methodology of Management Problems Research	Accounting in Engineering Management Master's Degree R&D Pre-graduation Practice
GPC-1.	Capability to solve professional tasks based on knowledge (at an advanced level) of economic, organizational and managerial theory, innovative approaches, generalization and critical analysis of management practices.	Managerial Economics Management Organization Theory	Master's Degree R&D Pre-graduation Practice Preparing for defense and defense of the degree thesis
GPC-2.	Capability to apply modern techniques and methods of data collection, advanced methods of their processing and analysis, including the use of smart information and analytical systems, in order to solve	Modern Strategic Analysis	Master's Degree R&D Pre-graduation Practice Preparing for defense and defense of the degree thesis

	management and research tasks.		
GPC-3.	Capability to make reasonable organizational and managerial decisions independently, evaluate their operational and organizational efficiency, and social significance, ensure their implementation in terms of a complex (cross-cultural) and dynamic environment.	Managerial Economics	Agile Project Management Master's Degree R&D Pre-graduation Practice Preparing for defense and defense of the degree thesis

4. SCOPE OF DISCIPLINE AND TYPES OF SCHOLASTIC WORK

The total workload of the discipline is 3 credits.

Table 4.1. Types of educational work according to the periods of mastering the higher education program for FULL-TIME students

Type of Educational Work	TOTAL, academic hours.	Semester(s)			
		1	2	3	4
Contact Work, academic hours.					
Lectures (**LC**)	18		18		
Laboratory Work (**LR**)					
Practical/seminar classes (**PC**)	36		18		
Autonomous Work of students, academic hours.	*27*		*54*		
Control (exam /graded credit), academic hours.	*27*		*18*		
Total Workload of the Discipline	academic hours	**108**		**108**	
	credits	**3**		**3**	

5. DISCIPLINE CONTENT

5.1. Content of the Section of the Discipline

Table 5.1. The content of the discipline (module) by type of academic work

Name of the sections (subjects) of the discipline	Summary of the sections (subjects) of the discipline:	Type of Educational Work
Section 1. General information from the theory of systems. The concept of a system approach and system analysis	**Subject 1. Introduction to Systems Theory and System Analysis** System concepts in practical activities Evolution of system representations. General definition of the system. Examples of systems. A brief description of the system. General properties of systems.	Lecture, self study

	Classification of systems. Ashby's Law of Requisite Variety. Signs of the system. Classification of systems. Types of system topology. The emergence of system analysis The concept of a systematic approach. General System Theory (theory of systems) by Ludwig von Bertalanffy. Isomorphism of the laws governing the functioning of systems is the main idea of the General System Theory proposed by Bertalanffy.	
	Subject 2. General Patterns of Technical Systems Development Types of technical systems. Minimal technical system. The law of increasing the degree of the system ideality. The law of S-shaped development of technical systems. The law of dynamization. The law of completeness of the system parts. The law of the through passage of energy. The law of advanced development of the working body. The law of "mono — bi — poly" transition. The law of transition from the macro to the micro level.	Lecture, self study
Section 2. Description and modeling of systems. Typical tasks of system analysis and methods of their solution	**Subject 3. Systems Description. Typical Tasks of System Analysis. The Concept of the System Model.** Concepts of system analysis necessary to describe systems. Classifications of challenges – objects of system analysis: - well structured; - unstructured; - poorly structured. Classical formulation and formalization of the problem in applied system analysis. The criterion of the problem solution quality. An indicator of the problem solution quality. Internal and external description of systems	Lecture, self study

	Definition of the model. Classification of modeling methods Model Requirements	

	Subject 4. Fundamentals of the Theory of Choice and Decision-Making. Analytical Hierarchical Decision-making Process (ANR) by T.Saati
	    Choice as the realization of the systems purpose.
	    Criterion language of choice description
	    Formulation of optimization problems and their classification.
	    Fundamentals of the analytical hierarchical process
	    The ANR three main functions
	Axioms of ANR
		Lecture, self study

	Subject 5. Conditional Optimization. Mathematical Programming
	    Example of setting an optimization challenge
	    Linear Programming (LP). Geometric method. The Symplex method
	    Methods to solve nonlinear software problems. Geometric interpretation
	Nonlinear programming
		Lecture, self study

	Subject 6. Choosing Alternatives in Multi-Criteria Tasks
	    Reducing a multi-criteria task to a single-criteria one
	    Conditional maximization
	    Search for an alternative with the specified properties
	Finding the Pareto set
		Lecture, self study

6. EQUIPMENT AND TECHNOLOGICAL SUPPORT OF THE DISCIPLINE

Table 6.1. Equipment and technological support of the discipline

Classroom Type	**Equipment of the Classroom**	**Specialized Educational/Laboratory Equipment, Software and Materials for the Discipline** (if necessary)
Lecture Hall	An auditorium for conducting lecture-type classes, equipped with a set of specialized furniture; a board (screen) and technical means of multimedia presentations.	no

Classroom Type	Equipment of the Classroom	Specialized Educational/Laboratory Equipment, Software and Materials for the Discipline (if necessary)
Laboratory	A classroom for laboratory work, individual consultations, continuous control and midterm certification, equipped with a set of specialized furniture and equipment.	no
Colloquium	A classroom for conducting colloquium-type classes, group and individual consultations, continuous control and midterm certification, equipped with a set of specialized furniture and multimedia presentation equipment.	no
Computer Class	A computer classroom for conducting classes, group and individual consultations, continuous control and midterm assessment, equipped with personal computers (___ pcs.), a blackboard (screen) and multimedia presentation technical means.	no
Autonomous Work of Students	A classroom for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to EIEE.	419

* - the room for autonomous work of students **MUST BE** indicated!

Electronic educational materials used in the teaching process, multimedia presentations, a bank of test tasks, etc. are provided on the Web-local portal.

The following equipment is used for conducting classes:
- classroom whiteboard – 1 pc.;
- multimedia projector – 1 pc.;
- screen – 1 pc.;
- personal computers (laptops, tablets) for practical training.

Description of the classrooms where classes are held

No	Actual address of classrooms and facilities	List of main equipment
1.	Miklukho-Maklay st., 6, room 419	multimedia projector, screen, classroom whiteboard

7. INFRASTRUCTURE AND INFORMATIONAL SUPPORT NECESSARY FOR THE DISCIPLINE
a) Main Readings:

1. Kazakova, N. A. Sovremenny strategichesky analiz [Modern strategic analysis]: textbook and workshop for universities / N. A. Kazakova. — 3rd ed., reprint. and add. — Moscow : Yurayt Publishing House, 2023. - 469 p. — (Higher education). — ISBN 978-5-534-11138-5. — Text : electronic // Yurayt Educational Platform [website]. — URL: https://urait.ru/bcode/511185

2. Otvarukhina, N. S. Sovremenny strategichesky analiz [Modern strategic analysis] : textbook and workshop for universities / N. S. Otvarukhina, V. R. Vesnin. — Moscow : Yurayt Publishing House, 2023. - 463 p. — (Higher education). — ISBN 978-5-534-14975-3. — Text : electronic // Yurayt Educational Platform [website]. — URL: https://urait.ru/bcode/511127

b) Additional Readings:

3.   Belov, P. G. Upravlenie riskami, sistemny analiz i modelirovanie za 3 chasa [Risk management, system analysis and modeling in 3 hours]. Part 1 : textbook and workshop for universities / P. G. Belov. — Moscow : Yurayt Publishing House, 2023. — 211 p. — (Higher education). — ISBN 978-5-534-02606-1. — Text : electronic // Yurayt Educational Platform [website]. — URL: https://urait.ru/bcode/512634

4.   Belov, P. G. Upravlenie riskami, sistemny analiz i modelirovanie za 3 chasa [Risk management, system analysis and modeling in 3 hours]. Part 2 : textbook and workshop for universities / P. G. Belov. — Moscow : Yurayt Publishing House, 2023. — 250 p. — (Higher education). — ISBN 978-5-534-02608-5. — Text : electronic // Yurayt Educational Platform [website]. — URL: https://urait.ru/bcode/512635.

8. ASSESSMENT TOOLKIT AND GRADING SYSTEM FOR COMPETENCES LEVEL EVALUATION

The assessment materials and the grading system* to evaluate the graduate's level of competences (part of competences) formation as the results of the **Modern Strategic Analysis** discipline are specified in the Appendix to course syllabus.

* - The assessment materials and the grading system are formed on the basis of the requirements of the relevant local regulation of RUDN University.

95-100	Excellent A
86-94	Excellent B
69-85	Good C
61-68	Satisfactory D
51-60	Satisfactory E
31-50	Conditionally unsatisfactory FX
0-30	Unsatisfactory F

DEVELOPERS:

Associate Professor of the Applied Economics Department		V.A. Ermakov
Position, educational department	Signature	Name, surname

HEAD OF EDUCATIONAL DEPARTMENT:

Deputy Head of the Applied Economics Department		A.A. Chursin
Name of the educational department	Signature	Name, surname

Program Manager

Associate Professor		A.A. Ostrovskaya
position, name of the department	signature	Name, surname

Methodological guidelines for students on mastering the discipline (module)

The implementation of the course provides interactive lectures, practical classes (colloquiums) using multimedia equipment, preparation of autonomous creative projects and their subsequent presentations, testing, group discussions on the subject of the course, modern knowledge control technologies.

While studying the discipline, the student must attend a course of lectures, participate in the number of colloquiums provided by the course syllabus, study autonomously some topics of the course and confirm their knowledge during control activities.

The student's work in lectures consists in clarifying the basics of the discipline, briefly taking notes of the material, and clarifying issues that cause difficulties. The lecture notes are the basic educational material along with the textbooks recommended in the main list of readings.

The teaching of the main part of the lecture material involves usage of multimedia tools that facilitate the comprehension and consolidation of the material. Presentations are available for download from the RUDN website and can be freely used by students for educational purposes.

The student must master all the topics provided for by the educational and thematic plan of the discipline. Individual topics and training issues must be mastered autonomously. The student studies the recommended literature, briefly outlines the material, and clarifies the most difficult questions that require clarification during consultations. The same should be done with sections of the course that were skipped due to various circumstances.

For an in-depth study of the issue, the student should study the literature from the additional readings list and specialized websites. It is also recommended that students communicate in professional community forums.

Students study educational, scientific literature and periodicals on an autonomous basis. They have the opportunity to discuss what they have read with the teachers of the discipline during scheduled consultations, with other students at colloquiums, as well as at lectures, asking the professor questions.

The control of autonomous work is carried out by the professor in charge. Depending on the teaching methodology, the following forms of continuous assessment can be used: a short oral or written survey before the start of classes, tests, control papers, written homework, essays, etc.

12. The toolkit for the midterm assessment of students in the discipline (module) *(developed and issued in accordance with the requirements of the "Regulations for the Formation of Assessment Toolkit (FOS"), approved by the Rector's order No. 420 dated 05.05.2016).*

| The code of the controlled competence or its part | Controlled Discipline Section | Controlled Discipline Topic | Classroom Work | | | | | Autonomous Work | | | | | | Scores Topics | Section Scores |
			Survey	Test	Colloquium	Control Paper	Discussion	Essay	Homework	Report	Creative Project	Course Paper / project	Exam/Test		
GC-1 GPC-1, GPC-2, GPC-3	Subject 1. Introduction to Systems Theory and System Analysis .	System concepts in practical activities Evolution of system representations. General definition of the system. Examples of systems. A brief description of the system. General properties of systems. Classification of systems. Ashby's Law of Requisite Variety.					1							1	8
		Signs of the system. Classification of systems. Types of system topology.					4		2					6	
		The emergence of system analysis. The concept of a systematic approach. General System Theory (theory of systems) by Ludwig von Bertalanffy. Isomorphism of the laws governing the functioning of systems is the main idea					1							1	

		of the General System Theory proposed by Bertalanffy.														
GC-1 GPC-1, GPC-2, GPC-3	Subject 2. General Patterns of Technical Systems Development	Types of technical systems. Minimal technical system.	4												4	
		The law of increasing the degree of the system ideality. The law of S-shaped development of technical systems. The law of dynamization.					4								4	10
		The law of completeness of the system parts. The law of the through passage of energy. The law of advanced development of the working body. The law of "mono — bi — poly" transition. The law of transition from the macro to the micro level.	2												2	
GC-1 GPC-1, GPC-2, GPC-3	Subject 3. Systems Description. Typical Tasks of System Analysis. The Concept of the System Model.	Choice as the realization of the systems purpose. Criterion language of choice description Formulation of optimization problems and their classification.					2								2	6
		Fundamentals of the analytical hierarchical process The ANR three main functions Axioms of ANR					4								4	
GC-1	Subject 4. Fundamentals of the Theory of Choice and Decision-	Choice as the realization of the systems purpose.			6	4									10	12

GPC-1, GPC-2, GPC-3	Making. Analytical Hierarchical Decision-making Process (ANR) by T.Saati	Criterion language of choice description															
		Formulation of optimization problems and their classification. Fundamentals of the analytical hierarchical process The ANR three main functions Axioms of ANR	2													2	
GC-1 GPC-1, GPC-2, GPC-3	Subject 5. Conditional Optimization. Mathematical Programming	Example of setting an optimization challenge Linear Programming (LP). Geometric method. The Symplex method					2									2	4
		Methods to solve nonlinear software problems. Geometric interpretation Nonlinear programming					2									2	
GC-1 GPC-1, GPC-2, GPC-3	Subject 6. Choosing Alternatives in Multi-Criteria Tasks	Reducing a multi-criteria task to a single-criteria one					2									2	10
		Conditional maximization Search for an alternative with the specified properties					6									6	
		Finding the Pareto set					2									2	
GC-1 GPC-1, GPC-2,		Milestone Certification (Control Paper)			20											20	

GPC-3															
GC-1 GPC-1, GPC-2, GPC-3		Exam											30		30
		TOTAL	25	10		20	10		15	10			30		100

EXAMINATION CARD No. 1

1. Conceptual apparatus and ways to improve the system.
2. Synectics as a method of management systems research.
3. Normative (classical) model and descriptive models.

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(signature)

Head of the department _____A.A. Chursin
(signature)

« __ "_____ 2021

Discipline   Modern Strategic Analysis
(name of the discipline)

EXAMINATION CARD No. 2

1. The concept and practical content of the research methodology.
2. The Delphi method.
3. The Carnegie model (political decision-making model) and the incremental decision-making process model.

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(signature)

Head of the department _____A.A. Chursin
(signature)

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EXAMINATION CARD No. 3

1. The object and subject of the research.
2. The goal tree method.
3. The "garbage can" model and the theory of incrementalism of Ch. Lindblom.

Compiled by _____ F.G. Vanyurikhin

(signature)

Head of the department _____A.A. Chursin

(signature)

« __ "_____ 2021

This Program has been developed in line with the requirements of the RUDN University Educational Standards.

Developers:

Associate Professor of the Applied Economics Department   _____ F.G. Vanyurikhin

position, name of the department   signature   Name, surname

_____   _____   _____

position, name of the department   signature   Name, surname

Program Manager

Associate Professor_____   _____   A.A. Ostrovskaya

position, name of the department   signature   Name, surname

**Head of the Applied
Economics Department**   _____   A.A. Chursin

signature