Summary of the discipline's work program

«Б1.О.02 «Information and analytical systems and technologies in the financial sector»»

(код и наименование дисциплины)

Volume of labor intensity: 3 credit units

The objective of the discipline: to form a set of knowledge, skills and abilities in the field of information and analytical systems and technology in the financial sphere based on mathematical, probabilistic, statistical models and the apparatus of financial and computer mathematics. Acquiring skills in working with modern software in the field of financial monitoring, data analysis, artificial intelligence systems, to form a holistic system of knowledge and modern competencies in the field of making financial and investment decisions in masters, as well as the ability to use them when making organizational and managerial decisions in professional activities.

Objectives of the discipline:

– study the theoretical and methodological foundations of using information and analytical systems and technologies in the financial sector;
– study modern techniques and methods for collecting financial and economic data, processing and analyzing them;
– study methods for using electronic resources to search, accumulate, process and transmit information;
– study methods for using intelligent information and analytical systems in solving practical and research problems;
– study modern scientific approaches to data analysis in the financial sector;
– study modern intelligent information and analytical technologies in solving applied and fundamental problems in the financial sector;
– study the methodology and standardization of the financial consulting and financial planning process;
– acquire skills in collecting, systematizing and analyzing information to analyze data in the financial sector;
– acquire skills in using electronic resources to search, accumulate, process and transmit information;
– acquire skills in using intelligent information and analytical systems in solving practical and research problems;
– acquire skills in using software (text, graphic, tabular and analytical applications, applications for visual presentation of data) for data analysis in the financial sector;
– acquire skills in financial consulting and financial planning using intelligent information and analytical systems;
– develop knowledge and skills in the field of information and analytical systems and technology in the financial sector;
– develop competencies in using intelligent information and analytical systems when solving practical and research problems;
– develop competencies in using intelligent information and analytical systems in applied and fundamental research in the field of financial relations.

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

The discipline "Information and analytical systems and technologies in the financial sphere" refers to the part formed by the participants of educational relations of Block 1

"Disciplines (modules)" of the curriculum. In accordance with the working curriculum, the discipline is studied in the 1st year of full-time and part-time education. Type of midterm assessment: credit.

The discipline "Information and analytical systems and technologies in the financial sphere" is

based on general economic knowledge obtained by students in a number of previous disciplines: financial and economic analysis (advanced level), methodology and organization of economic research, corporate finance in the digital economy, legal regulation in the financial sphere, financial markets and institutions. Knowledge of these disciplines will help graduate students to study in more detail the specifics of using intelligent information and analytical systems in applied and (or) fundamental research in the field of financial relations. This discipline will help to acquire practical skills in the field of using electronic resources for searching, accumulating, processing and transmitting information, to form competencies in using intelligent information and analytical systems in applied and fundamental research in the field of financial relations, to study the methods of using intelligent information and analytical systems in solving practical and research problems, to study the theoretical and methodological foundations of using information and analytical systems and technologies in the financial sector. The knowledge, skills and abilities obtained in the process of studying the discipline can be used to study the disciplines of corporate lending technology, modern risk management practice, financial planning and forecasting in the digital economy, financial consulting and in the preparation of the final qualifying work (master's thesis) and in practical activities.

Requirements for the level of mastery of the discipline

The study of this academic discipline is aimed at developing the following competencies in students:

Code and name of indicator* of achievement of competence	Learning outcomes for the discipline
ОПК-2 Able to apply advanced instrumental methods of economic and financial analysis in applied and/or fundamental research in the field of financial relations, including the use of intelligent information and analytical systems	
ИОПК-2.2 - Applies intelligent information and analytical systems in applied and/or fundamental research in the field of financial relations	Knows modern methods of obtaining, analyzing, and processing information. Knows the basic information technologies used in the process of financial consulting.
	Able to assess resource costs for the implementation and operation of the hardware and information component of the financial consulting process. Able to apply advanced instrumental methods of economic and financial analysis in applied and (or) fundamental research in the field of financial relations, including using intelligent information and analytical systems.
	Has a working knowledge of software (text, graphic, tabular and analytical applications, applications for visual presentation of data) for working with information at the level of an experienced user for the purpose of data analysis. Has the ability to assess resource costs for the implementation and operation of the hardware and information component of the financial consulting process

Code and name of indicator* of achievement of competence	Learning outcomes for the discipline
	Possesses the ability to apply advanced instrumental methods of economic and financial analysis in applied and/or fundamental research in the field of financial relations, including the use of intelligent information and analytical systems.

Contents of the discipline:

OFO.

Distribution of types of academic work and their workload by sections of the discipline, The total workload of the discipline is 3 credit units (108 hours). Sections (topics) of the discipline studied in the 1st semester (1st year) (full-time education)

№	Name of sections (topics)	Number of hours				
		Total	Classroom work			Extracurricular work
			Л	ПЗ	ЛР	СРС
1.	Theoretical foundations of the use of information and analytical systems and technologies in the financial sector	23	1		2	20
2.	Methodological tools for using information and analytical systems and technologies in the financial sector	26	2		4	20
3.	Modern information and analytical technologies in solving applied and fundamental problems in the financial sphere	27	1		6	20
4.	Intelligent information and analytical systems in applied and fundamental research in the field of financial relations	31,8	2		6	23,8
	TOTAL by discipline sections	**107,8**	**6**		**18**	**83,8**
	Independent Work Control (IWC)	**-**				
	Interim assessment (IA)	**0,2**				
	Preparing for the test					
	Total workload for the discipline	**108**				

Sections (topics) of the discipline studied in the 1st semester (1st year) (correspondence course)

№	Name of sections (topics)	Number of hours				
		Total	Classroom work			Extracurricular work
			Л	ПЗ	ЛР	СРС
1.	Theoretical foundations of the use of information and analytical systems and technologies in the financial sector	20	-		-	20
2.	Methodological tools for using information and analytical systems and technologies in the financial sector	23	1		2	20
3.	Modern information and analytical technologies in solving applied and fundamental problems in the financial sphere	24	2		2	20
4.	Intelligent information and analytical systems in applied and fundamental research in the field of financial relations	37	1		4	32
	TOTAL by discipline sections	**104**	**4**		**8**	**92**
	Independent Work Control (IWC)	**-**				
	Interim assessment (IA)	**0,2**				
	Preparing for the test	**3,8**				
	Total workload for the discipline	**108**				

Note: L – lectures, PC – practical classes/seminars, LC – laboratory classes, SIW – student independent work

Coursework: not provided
Form of certification in the discipline: credit

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