AGREED
Chairman of the
Educational and Methodological
Council of JSC «International Information
Technology University»

_____ **Mustafina A.**

«12» December 2024 Protocol of the EMC № 3

APPROVED
Chairman of the
Board-Rector of JSC «International Information
Technology University»

_____ **Issakhov A.**

«28» February 2025 Protocol of the AC № 10

EDUCATIONAL PROGRAM

6B04105 Financial technologies

Code and classification of the field of education: 6B04 Business, management and law

Code and classification of training area: 6B041 Business and management

Group of educational programs: B046 Finance, economics, banking and insurance

ISCED level: 6

NQR level: 6

ORC level: 6

Academic degree awarded: Bachelor of Business and Management in the educational program "6B04105 Financial technologies"

Duration of study: 3, 4

Number of credits: 240 ECTS

AGREED

_____ Данияр Ж.К

«__» _____ 2025

AGREED

_____ Тулеков Н.

«__» _____ 2025

Almaty, 2025

The code and name of the educational program: 6B04105 Financial technologies

№	Educational program developers (Position, scientific degree, academic degree, Full name)	Signature
1	Beisen E., Master of Finance, Senior Lecturer at the Department of "Economics and Business" of JSC "International Information Technology University"	

Contents

List of abbreviations and acronyms

BD	Cycle of basic disciplines
BC	Basic competency
BM	Basic module
UC	University component
HE	Higher education
NMS	National Mandatory Standards of Higher and Post-Graduate Education
ATT	Additional types of training
EQF	European qualifications framework
EFE	European foundation for education
KSA	Knowledge, Skills and Abilities
FA	Final attestation
EC	Elective component
ISCED	International Standard Classification of Education
NQF	National qualifications framework
NQS	National qualifications system
GHM	General humanitarian module
RC	Required component
GEM	General education module
GED	Cycle of general education disciplines
EP	Educational program
GPM	General professional module
SQF	Sectoral qualifications framework
GEC	General education competency
MD	Cycle of major disciplines
PI	Professional internship
PS	Professional standard
PE	Postgraduate education
PC	Professional competency
PM	Professional module
LO	Learning outcome
QMS	Quality Management System

1. Description of the educational program

The educational program *"Financial Technologies"* integrates essential modules and electives to provide key quantitative and analytical skills, knowledge of the financial sector, and practical experience through immersive learning.

The program enables students to understand, implement, and potentially develop financial innovations using appropriate tools and methods. It also equips them to demonstrate analytical skills for creating, managing, and analyzing large datasets relevant to the financial sector, as well as to critically assess current issues in financial technologies.

A set of programming tools facilitates the implementation of real-time financial models and allows for the analysis and evaluation of investment decisions and data.

2. Aim and objectives of the educational program

The purpose of the EP - To train specialists in financial technologies (FinTech) capable of designing, analyzing, and implementing digital financial solutions using big data, blockchain and artificial intelligence. Graduates will be equipped to evaluate corporate financial performance, develop digital financial products, and respond to dynamic market demands in the digital finance ecosystem.

EP objectives:

1. Develop students' ability to be guided by social and ethical values in their professional activities, and to understand the fundamentals of the legal system and legislation of Kazakhstan, in order to become well-educated individuals with a broad outlook and a culture of thinking;
2. Develop skills in conducting market analysis, assessing the state of an industry or sector, and making forecasts based on mathematical-statistical methods and modeling of financial and economic processes to solve specific business (production) problems using ICT;
3. Form the ability to interact with project teams and interested stakeholders, effectively organize groups, and manage the development and implementation of projects, including investment projects, by attracting necessary and sufficient resources (labor, financial, etc.) on local and international stock markets to achieve enterprise goals;
4. Instill skills for effective operation in the competitive landscape of modern financial organizations: creating ecosystem strategies, new fintech marketplaces using disruptive technologies, and ensuring secure operations that reduce fraud risks through the use of blockchain technology;
5. Prepare students to participate in the development, formation, and implementation of investment strategies for banks and companies, considering fundamental and technical analysis, and designing financial technologies and products with risk assessment.

3. Passport of the academic program

№	Name	Description
1.	Education area code and classification	6B04 Business, management and law
2.	Training direction code and classification	6B041 Business and management
3.	Group of academic programs	B046 Finance, economics, banking and insurance
4.	Name of the educational program	Financial technologies
5.	Aim of the educational program	To train specialists in financial technologies (FinTech) capable of designing, analyzing, and implementing digital financial solutions using big data, blockchain and artificial intelligence. Graduates will be equipped to evaluate corporate financial performance, develop digital financial products, and respond to dynamic market demands in the digital finance ecosystem.
6.	Type of the educational program	*The innovative program*
7.	Level according to the National Classifications Framework	6
8.	Level according to the Sectoral Qualifications Framework	6
9.	Distinctive features of the program	*Double diploma EP*
10.	Partner University	Tenega National University (UNITEN)
11.	Academic degree awarded	Bachelor of Business and Management in the educational program "6B04105 Financial technologies"
12.	Duration of study	*3, 4 years*
13.	Volume of credits	*240 ECTS*
14.	Language of education	*Kazakh, English, Russian*
15.	Atlas of new professions	-
16.	Regional standard	-
17.	Availability of an attachment to the training license	
18.	License number for the training area	KZ81LAM00001263
19.	Availability of program accreditation	HAOKO 2030
20.	Generated learning outcomes	Graduates of the Financial Technologies program possess strong multilingual communication skills, work effectively in teams, and demonstrate leadership qualities based on ethical principles. They apply analytical thinking to solve financial and managerial problems using quantitative methods and digital tools. The program prepares students to understand the market environment, make informed business decisions, and integrate technologies into financial practice. The acquired knowledge and skills are applied in real academic and professional settings.

4. Professional Standards (PS), profession cards, labor functions

№	Name of the PS	Profession card	Labor functions
1	Financing of Innovation Projects	Financial Support Specialist	1. Pre-project investment analysis 2. Development and financial support of the organization's investment activity 3. Support for portfolio companies 4. Monitoring of investments 5. Structuring of investment transactions 6. Portfolio exit management (IPO and trading sales) 7. Connecting investor networks to day-to-day operations 8. Development of a financial services package 9. VC form development 10. Identification, assessment, and ranking of risks
2	Financial Management	Financial Manager	1. Organization of firm financing 2. Financial planning of firm operations 3. Asset management 4. Analysis, accounting, and control of business performance

5. List of the EP competencies

GEC 1   Act in accordance with ethical principles, social responsibility, and the legal framework of Kazakhstan.

GEC 2   Understand ethical, cultural, political, and social systems, including sociological approaches to behavior.

GEC 3   Appreciate art, aesthetics, and cultural heritage; respect diversity and engage in self-development.

GEC 4   Think critically, analyze arguments, and participate in discussions, debates, and public speaking.

GEC 5   Navigate social situations, express viewpoints respectfully, collaborate, and resolve conflicts.

GEC 6   Communicate effectively in Kazakh, Russian, and one foreign language, both orally and in writing.

GEC 7   Possess a broad intellectual outlook, think independently, and make informed decisions in complex contexts.

GEC 8   Demonstrate digital literacy, including responsible use of digital tools, cybersecurity awareness, and online ethics.

GEC 9   Understand environmental and sustainability issues; apply ESG principles in decision-making and social engagement.

BC 1   Build and apply mathematical and statistical models for financial and economic decision-making.

BC 2   Conduct research and assess the economic state of countries, sectors, and enterprises using data analysis.

BC 3   Perform budgeting, cost analysis, financial planning, and optimize resource allocation.

BC 4   Understand and apply accounting principles and fiscal reporting standards in business operations.

BC 5   Conduct market and investment analysis, and develop national/international strategies using IT tools.

BC 6   Use Excel, MATLAB, SAP, and other ICT tools for financial analysis, reporting, and modeling.

BC 7   Apply software development and testing principles relevant to financial tools and solutions.

BC 8   Develop and manage corporate information systems; integrate technologies for compliance and reporting.

BC 9   Organize and manage teams, projects, and resources effectively within an enterprise context.

BC 10   Apply financial market principles to manage portfolios, evaluate securities, and interpret market dynamics.

BC 11   Apply ethical standards in financial decision-making, governance, and professional practice.

BC 12   Understand financial regulations and compliance frameworks (e.g., IFRS, AML, Basel) in national and global contexts.

PC 1   Apply stochastic processes and financial mathematics in modeling, forecasting, and financial decision-making.

PC 2   Conduct advanced financial analysis, including asset/liability management and investment evaluation.

PC 3   Design and implement financial innovations, technologies, and investment products.

PC 4   Develop and execute investment strategies using fundamental and technical analysis methods.

PC 5   Leverage Big Data, cloud computing, and modern analytics tools for financial market intelligence.

PC 6   Manage financial risks using both quantitative models and strategic evaluation techniques.

PC 7   Apply AI, machine learning, and automation tools in financial modeling, compliance, and decision systems.

PC 8   Make strategic decisions and provide leadership under uncertainty, risk, and market volatility.

6. List of learning outcomes of the EP

LO1   Communicate proficiently in Kazakh, Russian, and English, both orally and in writing, across academic and professional contexts.

LO2   Demonstrate interpersonal, teamwork, and leadership skills, including initiative, psychological readiness, and the ability to make informed managerial and technical decisions.

LO3   Demonstrate ethical reasoning and incorporate ethical considerations into business decision-making across finance, management, and technology domains.

LO4   Use mathematical, statistical, and systematic methods for analyzing quantitative data and solving management problems.

LO5   Identify and analyze key socio-economic and industry-specific issues, assess organizational performance, and evaluate economic potential at multiple levels.

LO6   Conduct market and business environment analysis, develop strategic plans, and manage resources using digital and analytical tools.

LO7   Design and implement solutions using financial technologies such as blockchain, digital payment systems, and smart contracts.

LO8   Evaluate financial performance and risk using advanced tools including simulations, forecasting models, and portfolio analysis.

LO9   Incorporate cybersecurity, data protection, and regulatory requirements into the development and management of financial systems.

LO10   Apply the knowledge and skills acquired in the chosen additional educational program (minor) to real-world professional or academic contexts.

7. Matrix for correlating the learning outcomes of the EP with the formed **competencies (V)**

	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10
GEC1			V							
GEC2			V							
GEC3			V							
GEC4	V									
GEC5	V	V								
GEC6	V									
GEC7		V			V					V
GEC8						V			V	
GEC9					V					
BC1				V						
BC2					V					
BC3					V			V		
BC4					V			V		
BC5					V	V				
BC6				V		V	V	V		
BC7							V			
BC8							V		V	
BC9	V	V				V				V
BC10								V		
BC11			V							
BC12									V	
PC1				V				V		
PC2					V			V		
PC3							V			
PC4					V	V				
PC5				V	V	V	V	V		
PC6						V		V	V	
PC7				V			V		V	
PC8		V				V				V

8. The relationship of LO with labor functions

№	LO	Labour Functions
1	Communicate proficiently in Kazakh, Russian, and English, both orally and in writing, across academic and professional contexts.	HR management; Analysis, accounting and control of business performance; Support for portfolio companies / investor relations
2	Demonstrate interpersonal, teamwork, and leadership skills, including initiative, psychological readiness, and the ability to make informed managerial and technical decisions.	HR management; Activity analysis and control; Support for portfolio companies / investor relations
3	Demonstrate ethical reasoning and incorporate ethical considerations into business decision-making across finance, management, and technology domains.	Activity analysis and control; Investment policy; Structuring investment deals; Investment monitoring and reporting
4	Use mathematical, statistical, and systematic methods for analyzing quantitative data and solving management problems.	Forecasting, modeling, efficiency and risk assessment; Financial and economic project justification

5	Identify and analyze key socio-economic and industry-specific issues, assess organizational performance, and evaluate economic potential at multiple levels.	Market and macroeconomic trend analysis; Research of trends; Strategic decision preparation
6	Conduct market and business environment analysis, develop strategic plans, and manage resources using digital and analytical tools.	Digital strategy development; Use of analytical tools; Project management
7	Design and implement solutions using financial technologies such as blockchain, digital payment systems, and smart contracts.	Financial solution development using blockchain, digital payments, and smart contracts
8	Evaluate financial performance and risk using advanced tools including simulations, forecasting models, and portfolio analysis.	Project efficiency evaluation; Risk analysis; Use of econometric and statistical models
9	Incorporate cybersecurity, data protection, and regulatory requirements into the development and management of financial systems.	Development and support of financial security systems; Legal documentation updates
10	Apply the knowledge and skills acquired in the chosen additional educational program (minor) to real-world professional or academic contexts.	Participation in applied or research projects; Application of knowledge in professional context

9. Table showing interconnection of competencies, learning outcomes, assessment **methods and criteria**

Competencies of the EP graduate	Competences expressed in expected learning outcomes	Evaluation criteria	Name of the estimation method
General educational competencies			
GEC 1	LO 3	Demonstrates understanding of ethical norms and laws; applies them in cases or discussions	Case analysis, writing an analytical essay on a given topic, multiple-choice or open-ended testing
GEC 2	LO 3	Justifies the influence of social and cultural factors on behavior; argues their point of view	Essay, preparation and defense of a presentation, discussion
GEC 3	LO 3	Shows respect for culture and art; participates in cultural events or projects	Project, participation in an event, writing an analytical essay on a given topic
GEC 4	LO 1	Argues their position, participates in debates, critically analyzes texts or ideas	Debates, public speaking, multiple-choice or open-ended testing
GEC 5	LO 1, 2	Demonstrates communication, conflict resolution, and teamwork skills	Group observation, self-assessment using questionnaires or reflective reports, survey
GEC 6	LO 1	Confidently uses Kazakh, Russian, and foreign languages orally and in writing	Oral preparation and presentation defense, written testing with multiple-choice or open-ended questions
GEC 7	LO 2, 5, 10	Displays independent thinking and makes logically sound decisions	Situational tasks, case analysis
GEC 8	LO 6, 9	Demonstrates digital safety and ethics skills in an online environment	Computer-based testing with multiple-choice or open-ended questions, practical work, development of an individual or group project
GEC 9	LO 5	Analyzes environmental problems and applies ESG principles in cases	Project, writing an analytical essay on a given topic, situational analysis
Basic competencies			

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BC 1	LO 4	Analyzes academic texts and identifies key ideas	Analytical essay writing on a proposed topic, multiple-choice or open-ended testing
BC 2	LO 5	Applies basic mathematical and analytical methods	Testing, exercises
BC 3	LO 5, 8	Solves practical problems using ICT	Practical work, development of an individual or group project
BC 4	LO 5, 8	Uses digital technologies to collect and analyze data	Practical work, solving applied situational problems (case analysis)
BC 5	LO 5, 6	Interprets data, uses statistical methods	Test, laboratory work
BC 6	LO 4, 6, 7, 8	Analyzes complex situations, proposes solutions	Project, group work
BC 7	LO 7	Demonstrates leadership qualities and ability to work in a team	Observation, self-assessment using questionnaires or reflective report
BC 8	LO 7, 9	Understands social and cultural differences in the global environment	Essay, preparation and defense of a presentation
BC 9	LO 1, 2, 6, 10	Demonstrates civic position and complies with ethical standards	Case analysis, debates
BC 10	LO 8	Shows initiative in academic and extracurricular activities	Portfolio, self-report
BC 11	LO 3	Respects cultural differences and heritage	Essay, participation in events
BC 12	LO 9	Applies sustainable principles in everyday life	Project, situational analysis
Professional competencies			
PC 1	LO 4, 8	Analyzes professional tasks and proposes solutions	Practice-oriented development of an individual or group project
PC 2	LO 5, 8	Uses digital and mathematical methods in the profession	Laboratory work, solving applied situational problems (cases)
PC 3	LO 7	Participates in team projects and shows initiative	Group evaluation, report
PC 4	LO 5, 6	Interprets professional data and applies ICT	Written assignment, practical work
PC 5	LO 4, 5, 6, 7, 8	Solves professional tasks comprehensively	Project, comprehensive exam
PC 6	LO 6, 8, 9	Applies modern technologies considering safety and sustainability	Research, development of an individual or group project
PC 7	LO 4, 7, 9	Develops strategic thinking and responsibility	Reflection, group participation in a group discussion with argumentation of opinions
PC 8	LO 2, 6, 10	Analyzes economic and managerial aspects	Analytical assignment, case

10. Information about the modules of the educational program

Module code and name	Volume of the module	Learning outcomes	Learning outcomes assessment criteria	Disciplines forming the module Code and name
GENERAL EDUCATION MODULES				
OOM6002 Language and ICT skills development module	25	The student should demonstrate an understanding of the historical, philosophical, cultural, and social foundations of Kazakhstani society, as well as the ability to analyze key ideas, events, and processes in the humanities and social sciences.	Assessment focuses on the student's ability to interpret and critically reflect on historical facts, philosophical and sociocultural concepts, and apply basic methods of inquiry in the humanities and social sciences. Evaluation methods include essays, written exams, oral responses, quizzes, presentations, and project assignments.	LAN6001AForeign language LAN6001KRKazakh (Russian) language LAN6002AForeign language LAN6002KRKazakh (Russian) language ICT6001Information and Communication Technologies
OOM6001 Module of social and cultural development	18	The student should demonstrate an understanding of the historical, philosophical, cultural, and social foundations of Kazakhstani society, as well as the ability to analyze key ideas, events, and processes in the humanities and social sciences.	Assessment focuses on the student's ability to interpret and critically reflect on historical facts, philosophical and sociocultural concepts, and apply basic methods of inquiry in the humanities and social sciences. Evaluation methods include essays, written exams, oral responses, quizzes, presentations, and project assignments.	HK6002History of Kazakhstan SPS6006Cultural studies-Psychology SPS6007Sociology-Political science SPS6001Philosophy
OOM6004 Module of personal and social development	25	The student should demonstrate an understanding of the fundamentals of law, ecological sustainability, inclusive education, personal safety, and financial literacy, along with a readiness for responsible participation in civic life and sustainable development.	Assessment focuses on the student's ability to apply basic legal and financial knowledge, assess environmental and social risks, and demonstrate tolerance and inclusivity in professional and social contexts. Evaluation methods include quizzes, written exams, case analysis, essays, presentations, practical tasks, and project work.	LAW6007Fundamentals of law and anti-corruption culture JUR6413Fundamentals safety of life activity JUR 6505Ecology and sustainable development HUM6400Inclusive education ECO6007Foundation of economics and financial literacy
OOM6003 Module of physical culture	8	The student should demonstrate knowledge of physical culture fundamentals, basic motor	Assessment includes evaluation of physical fitness, knowledge of physical education theory, participation in sports and wellness	PhC6005Physical Culture PhC6006Physical Culture

		skills, and a developed attitude toward a healthy lifestyle and physical activity as essential elements of personal and professional development.	activities, and compliance with physical activity standards. Methods include practical pass/fail exams, fitness testing, participation in competitions, and maintaining a physical activity log.	
BASIC MODULES				
BM6721 Module of Accounting and Audit		33 The student should be able to apply principles of financial and managerial accounting, analyze financial statements, calculate tax obligations, perform basic audit procedures, and use ERP systems to automate accounting processes and ensure financial information integrity.	Assessment focuses on the student's ability to maintain accounting and tax records, prepare and interpret financial reports, apply managerial analysis techniques, perform audit-related tasks, and operate ERP modules. Evaluation methods include written exams, case studies, quizzes, practical and computational tasks, project defense, and ERP-based lab assignments.	ACC6701Business and Technology (ACCA)
				ACC6704Financial accounting
				ACC6703Management accounting
				FIN6714Tax and taxation
				FIN6718Audit
				SFT6143ERP Fundamentals (ERP-1)
				MGT67321C: Accounting
BM6722 Module of Mathematical Preparation		15 The student should be able to apply basic and advanced methods of mathematical analysis, linear algebra, and statistics to solve practical and theoretical problems in academic and professional settings, including modeling, computation, and data interpretation.	Assessment is based on the student's ability to solve mathematical and statistical problems, perform computations, construct mathematical models, analyze numerical data, and draw reasoned conclusions. Evaluation methods include written exams, quizzes, computational and graphical tasks, and defense of individual or group projects.	MAT6009Mathematics 1
				MAT6010Mathematics 2
				MAT6012Statistics
BM6723 Module of Practice		10 The student should be able to apply theoretical knowledge in practice, perform professional tasks in real or simulated work environments, analyze the production or organizational setting, adhere to professional ethics, and demonstrate readiness for independent work within their field of specialization.	Assessment focuses on the student's ability to complete assigned tasks during the internship, analyze and document their activities, communicate effectively with supervisors and colleagues, and meet deadlines and professional standards. Evaluation methods include a practice report, practice diary, presentation or defense of the report, and a supervisor's reference from the internship site.	EP6701Educational practice
				IP 6702Internship
				IP6703Internship

BM6724 Module of Business Fundamentals		13	The student should demonstrate knowledge of the fundamentals of entrepreneurial law, management, and marketing, and the ability to apply this knowledge to analyze the business environment, plan operations, and make informed managerial decisions.	Assessment focuses on the student's ability to apply legal principles in business contexts, analyze market conditions, and develop managerial and marketing solutions. Evaluation methods include written exams, quizzes, case studies, presentations, business plan development, and participation in business simulations.	LAW6001Entrepreneural law MGT6701Management MRK6701Marketing
BM6725 Module of Professional English		10	The student should be able to use professional English effectively in both oral and written forms to carry out tasks related to their field, including business correspondence, presentations, reading and analyzing specialized texts, and participating in professional communication.	Assessment focuses on the student's ability to use appropriate terminology, apply language structures in a professional context, comprehend and interpret specialized materials, and engage in occupational communication. Evaluation methods include written and oral exams, quizzes, case-based assignments, presentations, business writing tasks, and project defense.	LAN6001PAProfessionally oriented foreign language 1 LAN6001PA2Professionally oriented foreign language 2
BM6726 Module of Introductory Financial Technologies		20	The student should demonstrate an understanding of core concepts and technologies in financial technology, including blockchain, artificial intelligence, machine learning, and smart contracts, as well as the ability to analyze their application in the financial industry.	Assessment focuses on the student's ability to explain how financial technologies function, evaluate their potential and risks, apply basic AI and ML algorithms, and analyze real-world cases of digital transformation. Evaluation methods include written exams, quizzes, case analysis, presentations, lab assignments, and project work.	SFT6322Introduction of artificial intelligence FIN6716Introduction to FinTech FIN6101Blockchain Technologies and Smart Contracts FIN6102Artificial Intelligence and Machine Learning in Finance
BM6727 Module of Economics		10	The student should demonstrate an understanding of fundamental concepts in micro- and macroeconomics, with the ability to analyze the behavior of economic agents, market structures, macroeconomic	Assessment focuses on the student's ability to apply economic models and analytical tools, interpret graphs and indicators, and justify economic decisions at both individual and national levels. Evaluation methods include written exams, quizzes, problem-solving, case analysis, graphical tasks, and participation in business simulations.	ECO6701Microeconomics ECO6702Macroeconomics

			indicators, and public economic policies.		
BM6729 Module of Research and Analytics		9	The student should be able to apply research methodology and financial analysis tools, use data visualization software to support decisions, and design and present analytical or research projects in line with academic standards.	Assessment is based on the student's ability to formulate research questions, collect and analyze data, interpret results, visualize findings using appropriate tools, and present conclusions in both written and oral forms. Evaluation methods include written assignments, presentations, project defense, case analysis, quizzes, and applied tasks in Excel, Power BI, or similar platforms.	FIN6722Financial Analytics and Data Visualization
					RM6701Research Methodology
BM6728 Module of Minor		15	The student should be able to acquire and apply specialized knowledge and skills within the chosen minor, integrate them with core professional training, and analyze, justify, and present applied solutions in an interdisciplinary context.	Assessment is based on the student's ability to adapt specialized knowledge to professional settings, develop and implement applied or research projects, and communicate results effectively in oral and written form. Evaluation methods include exams, project and practical tasks, presentations, case analyses, and final work defense.	MNR6701Minor 1
					MNR6702Minor 2
					MNR6703Minor 3
PROFESSIONAL MODULES					
PM6721 Module of Finance		41	The student should demonstrate a solid understanding of classical finance principles, including corporate finance, financial markets and institutions, financial risk management, financial statement analysis, investment evaluation, and financial modeling for strategic decision-making in traditional finance settings.	Assessment evaluates the student's ability to analyze corporate financial statements, compute key financial ratios, assess investment and financing decisions using classical methods such as DCF and NPV, develop models for cash flow and capital management, and apply techniques in financial risk control. Exam methods include written exams, computational problems, case analysis, project defense, quizzes, and financial modeling in Excel.	FIN6701Finance
					FIN6704Financial markets and intermediaries
					FIN6702Corporate Finance
					FIN6705Financial statement analysis
					FIN6703Financial management
					FIN6709Financial risk management
					FIN6710Financial investments
					FIN6711Financial modeling
PM6722 Module of		39	The student should be able to apply digital technologies and	Assessment focuses on the student's ability to design and operate digital finance	FIN6723Digital and Traditional Insurance Systems

Applied Financial Technologies		software tools in finance, including compliance automation, data management, algorithmic trading, digital insurance, and banking innovation. They should also be able to analyze and develop solutions for digital financial systems and processes using programming languages and database tools.	platforms, integrate databases and programming algorithms into analysis workflows, simulate algorithmic trading and portfolio optimization, and ensure regulatory compliance in digital environments. Methods include Python lab work, financial process modeling, projects, case defense, written exams, and a pre-graduation internship with report and presentation.	FIN6721Regulatory Technology and Compliance Automation
				FIN6724Digital Banking Systems and Innovation
				PP6704Undergraduate practice
				FIN6103Database Technologies in Financial Systems
				FIN6104Data Processing for FinTech with Python
				FIN6725Derivatives Markets and Algorithmic Trading
				FIN6726Traditional and Automated Portfolio Management

11. Information about the disciplines of the educational program

№	Discipline Code and Name	Brief description of the discipline (30-50 words)	Labor intensity of discipline in credits	Learning outcomes formed (codes)	Prerequisites	Postrequisites
		Cycle of general education disciplines (GED)				
		Required component (RC)				
1	LAN6001A - Foreign language	The English language course is designed for 1st-year IITU students with basic knowledge of general English. The course covers general topics such as countries and nationalities, family and friends, daily routine, place of residence, travel, sports, hobbies, etc. Each topic is studied through relevant glossaries and target grammatical structures in various types of listening, reading, speaking, and writing.	5	**LO1,2**		LAN6002A - Foreign language
2	LAN6001KR - Kazakh (Russian) language	The "Kazakh/Russian Language" course is aimed at improving language, speech, and communication competencies. Its goal is to enhance students' language abilities and develop skills in four types of speech activities (speaking, listening, reading, writing). The content of the standard curriculum for the general education discipline "Kazakh/Russian Language" includes topics for seminar (practical) classes and students' independent work. Training is conducted at 3 levels: A, B, and C.	5	**LO1,2**		LAN6002KR - Kazakh (Russian) language
3	HK6002 - History of Kazakhstan	The program is aimed at shaping students' historical consciousness through the study of modern history of Kazakhstan. Special attention is given to identity, national self-awareness, and modernization of public consciousness within the framework of the "Rukhani Zhangyru" program, with an emphasis on spiritual and cultural traditions.	5	**LO3,5**		
4	LAN6002A - Foreign language	The General English course for 1st-year students covers topics such as education, careers, traditions, and culture. It develops speech skills, communication competencies, and language awareness through interactive learning methods and independent work	5	**LO1,2**	LAN6001A - Foreign language	
5	LAN6002KR - Kazakh (Russian) language	The course is based on a communicative approach, combining elements of problem-based and individualized learning. It develops linguistic and speech competencies, systematically studies vocabulary, and prepares students for effective language use in real communication situations.	5	**LO1,2**	LAN6001KR - Kazakh (Russian) language	
6	ICT6001 - Information and Communication Technologies	Information and Communication Technologies — a course dedicated to studying modern methods and tools for processing, storing, transmitting, and protecting information. It covers the basics of working with digital technologies, internet resources, software, and their application in professional and everyday activities.	5	**LO6,9**		
7	PhC6005 - Physical Culture	The course is dedicated to the development of students' physical culture and their ability to purposefully use various means of physical culture to maintain and improve health.	4	**LO2**		
8	SPS6006 - Cultural studies-Psychology	The course lays the foundation for studying the humanities, develops intercultural communication and understanding of social psychology. Role-playing games, cases, and projects are used. The acquired knowledge is	4	**LO2,3,5**	HK6002 - History of Kazakhstan	SPS6007 - Sociology-Political science

		applicable in personal, professional, and social spheres, as well as in working with people of different ages and social groups.				
9	PhC6006 - Physical Culture	The course is dedicated to the development of students' physical culture and their ability to purposefully use various means of physical culture to maintain and improve health.	4	**LO2**		
10	SPS6007 - Sociology-Political science	The course covers key aspects of sociology and political science: the study of social phenomena, research methods, political systems, and mechanisms of power. Students develop analytical thinking, distinguish scientific approaches, learn to work in teams and understand socio-political processes in both national and global contexts.	4	**LO2,3,5**	SPS6006 - Cultural studies-Psychology	
11	SPS6001 - Philosophy	The discipline is one of the core general education courses in the bachelor's training system for students in engineering and economics programs. This course aims to foster students' openness of consciousness, understanding of their national identity and self-awareness, spiritual modernization, competitiveness, realism and pragmatism, independent critical thinking, a culture of knowledge and education, and to instill key worldview values such as justice, dignity, and freedom, as well as to develop and strengthen the values of tolerance, intercultural dialogue, and a culture of peace.	5	**LO3,5**		
	Cycle of general education disciplines (GED)					
	University component (UC) and (or) Elective component (EC)					
12	LAW6007 - Fundamentals of law and anti-corruption culture	The course outlines the legal, economic, and social foundations of fighting corruption. Throughout the course, students will gain practical knowledge in identifying the peculiarities of state policies, applying international experiences in combating corruption, mastering skills in conflict resolution, and detecting corruption activities using professional ethics and methods. After successful completion of the course, students will gain the following competencies: 1. Understand the measures of legal responsibility for participation in corruption violations. 2. Determine the conflict of interests in the activities of organizations leading to corruption. 3. Analyze the work of organizations using various research methods.	5	**LO3,5**		
13	JUR6413 - Fundamentals safety of life activity	Studying ways of safe human interaction with the environment (industrial, domestic, urban, natural), sustainable operation of business facilities (organizations) in emergency situations, issues of protection from negative factors, prevention and elimination of the consequences of natural and man-made emergencies and the use of modern means defeat.	5	**LO6**		
14	JUR 6505 - Ecology and sustainable development	The course reveals the role of ecology in solving modern economic, social and political problems, as well as the emergence of global environmental problems as a result of human production activities and the responsibility of the world community for them. A very important aspect is also international cooperation to ensure sustainable development. Various areas of practical application of ecology are also considered - natural resources and environmental pollution.	5	**LO5,6**		

15	HUM6400 - Inclusive education	The philosophy, history and methodology of an inclusive approach. Documents governing the development of an inclusive process in higher professional education. Educational needs of students with disabilities and disabilities. Methods and forms of organization of the educational process at a university for students with disabilities. Development of adapted educational programs, curricula and educational paths for students with disabilities and disabilities. Psychological and pedagogical support of students with disabilities and disabilities at the university.	5	**LO2**		
16	ECO6007 - Foundation of economics and financial literacy	This course provides an integrated introduction to economics and legal foundations relevant to entrepreneurial decision-making and everyday personal finance. Students will understand basic economic principles, and navigate legal systems affecting individuals and businesses and learn how to manage personal finances. Topics include economic behavior, legal research, business budgeting, taxation, investment and case analysis. The course is open to non-economics majors interested in how economic, legal and financial systems shape our lives.	5	**LO5,6,8**		
	Cycle of basic disciplines (BD)					
	University component (UC)					
17	ACC6701 - Business and Technology (ACCA)	This subject, as part of the ACCA course, is aimed at achieving an understanding of the essence of a business organization, its goals, organizational structure, and the functions of accounting and finance in business. Also, this subject reveals the importance of developing leadership skills, team management skills, and personal effectiveness.	5	**LO2,6,7**		
18	ACC6704 - Financial accounting	The purpose of the course is to study the following topics: working with financial statements, analysis of the balance sheet and profit and loss statement, analysis of the cash flow statement, analysis of liquidity, solvency and profitability. This course aims to provide students with the basics of financial reporting from the point of view of financial reporting users (lender and investor), as well as financial analysis tools and methods for decision-making. The course introduces a set of information that an analyst can use when analyzing the company's financial indicators, including the main financial statements (profit and loss statement, balance sheet, cash flow statement and statement of changes in equity). Students will learn how to compare companies financially, understand cash flows, as well as the main issues of profitability and risk analysis concepts. Students apply analytical tools and concepts in analyzing competitors, making credit and investment decisions, and evaluating businesses.	5	**LO4,6,8**		
19	MAT6009 - Mathematics 1	The course focus on students' understanding of calculus concepts and provide experience with methods and applications. The main emphasis is on a metarepresentational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The course covers topics in these areas, including	5	**LO4**		

		concepts and skills of limits, derivatives, definite integrals.				
20	MAT6010 - Mathematics 2	The aim of the course is to introduce students to the important branches of calculus and its applications in IT. During the educational process, students should learn and be able to apply mathematical methods and tools to solve various applied problems. Moreover, they study fundamental methods of studying infinitesimal variables by means of analysis, which is based on the theory of differential and integral calculations.	5	**LO4**		
21	MAT6012 - Statistics	The course gives an overview of the basic laws of a probabilistic-statistical approach to solving various problems. Topics discussed include displaying and describing data, the normal curve, regression, probability, statistical inference, confidence intervals, and hypothesis tests with applications in the real world. Students also have the opportunity to analyze data sets using technology.	5	**LO4,8**		
22	LAW6001 - Entrepreneural law	The business law course examines the legal foundations of entrepreneurial activity in the context of the modern development of the market economy of the republic, the theory and practice of applying the norms of business law, as well as issues of protecting the rights and interests of entrepreneurs.	3	**LO3,5,9**		
23	MGT6701 - Management	Module 1. Methodological fundamentals of management: Management as a kind of activity; Management History; Organization as an object of management. Module 2. Integration processes in management: Communication and Management; Management decisions in the management process. Module 3. Management functions: Strategic and tactical planning in the management system; Organization as a function of management; Leading as a function of management; Control in the management system. Module 4. Group Dynamics and Leadership: Managing human activities and managing a group; Influence and power; Basics of Leadership and Leadership Style; Basics of Conflict Theory."	5	**LO1,2,6**		
24	MRK6701 - Marketing	The purpose of the course is to teach classic and modern concepts of marketing and get acquainted with the main marketing tools used by companies in practice. The course covers aspects of marketing such as: marketing strategy, promotion, market planning, distribution, industrial marketing, retail and wholesale, target marketing, digital marketing, market segmentation, marketing services and pricing.	5	**LO5,6**		
25	LAN6001PA - Professionally oriented foreign language 1	A course of Professional English focuses on such topics of professional interest as Future trends in IT, Computer as a friend, Computer as a foe, Minimizing the negative impacts, Magnetic storage, Optical storage, Flash memory, the Programming languages, Web design, Graphics and design, etc. It is designed to raise the students' language awareness, improve their speech skills and communication competences in Professional English.	5	**LO1**		
26	LAN6001PA2 - Professionally oriented foreign language 2	Professionally oriented foreign language 2 course is focused on further in-depth study, obtaining theoretical knowledge and practical skills of the English language in the	5	**LO1,6**		

		professional IT field. Designed to achieve fluent use of the English language in all areas of professional activity in writing and speaking. It involves the consolidation and improvement of the skills necessary to solve social and communicative problems in various areas of business communication as a means of professional and business communication.				
27	SFT6322 - Introduction of artificial intelligence	The course will cover basic machine learning algorithms such as regression, classification, clustering, and neural networks, as well as deep learning and natural language processing technologies.	5	**LO4,6,7**		
28	FIN6716 - Introduction to FinTech	This course will provide students with the latest empowering and practical knowledge on FinTech enabling them to understand some of the FinTech changes taking place currently in the financial services industry and, most importantly, the trends that will impact the industry in the future. The course goal is to explain the impact of FinTech, its ooportunities, acquire practical industry, investor, financial and entrepreneurial knowledge and skills enabling students to potentially identify a need in the financial services industry and launch their own Financial Innovations start-up.	5	**LO5,7,8,9**		
29	ECO6701 - Microeconomics	The course introduces microeconomics to students. It provides the basic principles and the intuition behind modern professional economic thinking about buying, selling, setting prices, competing for customers, looking for jobs, and earning a living. It also gives a first outlook on the toolbox used in the microeconomic analysis. During lectures, students get familiar with basic economic terms and concepts.	5	**LO5**		
30	ECO6702 - Macroeconomics	The aim of the course is to provide a scientific explanation of economic processes at the level of the national economy and the factors influencing them. The course provides the basis for a wise economic policy. The content of the course includes the study of income and ways of their distribution; unemployment and ways to reduce it; inflation and its stabilization; internal economic fluctuations and ways to reduce them; economic growth rates and factors influencing their growth.	5	**LO5**		
31	FIN6722 - Financial Analytics and Data Visualization	This course covers data analysis techniques and visualization tools used in finance. Students learn to extract insights from financial data using EViews, Excel, and BI platforms. Emphasis is placed on dashboards, forecasting, and presenting complex information clearly for decision-making.	5	**LO4,6,7,8**		
32	RM6701 - Research Methodology	The course is devoted to the study of activities aimed at developing students ' ability to independent theoretical and practical judgments and conclusions, skills of objective evaluation of scientific information, freedom of scientific research and the desire to apply scientific knowledge in educational activities, including for the diploma project (work).	4	**LO2,8**		
Cycle of basic disciplines (BD)						
Elective component (EC)						
33	ACC6703 - Management accounting	The course introduces students to contemporary management accounting concepts and techniques. Topics include: the role of accountants in internal decision-	5	**LO6,8**		

		making, tools used to design and develop costing systems, preparation of budgets and their role as a planning and control tool, other decision-making tools including CVP analysis, pricing decisions and costs of quality.				
34	FIN6714 - Tax and taxation	"The course ""Tax and Taxation"" is one of the key disciplines for students studying economics and business. The course promotes awareness of the importance of the taxation system, as well as the acquisition of skills by students in interpreting the norms of the tax code of the Republic of Kazakhstan, as well as international agreements and treaties in the field of taxation. Upon completion of this course, students will be able to interpret the norms of the tax laws of various countries, carry out calculations to determine the tax base, as well as the amount of tax payable to the budget.	5	**LO5,6,9**		
35	FIN6718 - Audit	An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. ... This course focuses on audits of financial statements by independent auditors.	5	**LO1,8,9**		
36	SFT6143 - ERP Fundamentals (ERP-1)	The course includes: a brief history of ERP. What is the ERP-system. The concept of enterprise resource planning systems. The concept of the next generation of ERP-II. What can you do ERP system. Functions of the ERP system. The main purpose of the ERP-system. Scope of application. Characteristics of ERP-systems. Selection of ERP-system. ERP architecture. Classification of ERP-systems. Market analysis of ERP-systems. Introduction. New trends: lease of ERP-systems. overview of SAP R / 3.	4	**LO5,6,9**		
37	MGT6732 - 1C: Accounting	This course examines and studies the basic principles of organization of accounting and tax accounting based on the configuration of "1C Accounting" on the basis of a cross-cutting practical situation in the accounting of the organization, culminating in the preparation of regulated and tax reporting forms.	4	**LO6,8**		
38	FIN6101 - Blockchain Technologies and Smart Contracts	This course introduces blockchain fundamentals and the role of smart contracts in financial technologies. Students explore decentralized systems, consensus mechanisms, tokenization, and blockchain-based applications in payments, identity, and asset management. Legal and security considerations are also addressed.	5	**LO7,9**		
39	FIN6102 - Artificial Intelligence and Machine Learning in Finance	This course introduces the use of AI and machine learning in finance, including applications in trading, fraud detection, credit scoring, and risk management. It also touches on ethical concerns, model transparency, and the regulatory landscape shaping AI integration into financial services.	5	**LO3,4,7,8**		
40	MNR6701 - Minor 1	The course is intended for the development of competencies other than profiling	5	**LO10**		
41	MNR6702 - Minor 2	The course is intended for the development of competencies other than profiling	5	**LO10**		
42	MNR6703 - Minor 3	The course is intended for the development of competencies other than profiling	5	**LO10**		
Cycle of major disciplines (MD)						
University component (UC)						

43	FIN6701 - Finance	The course of "Finance" represents the basic studying discipline. It includes both theoretical rules of science about finance and practical aspects of use of category in economic processes. Conceptually discipline is based on criteria and principles of economic theory and its continuation, concrete definition in specific sphere of financial relations. The financial relations as the integral part of the industrial relations has specificity consisting of their character, directed on reproduction of a public product with formation of target money funds.	5	**LO5,8**		
44	FIN6704 - Financial markets and intermediaries	This course forms knowledge about: the securities market; its professional members; investors; tools and their features; procedures; introduces students to the specific terms of the financial market and expands the concept of others within this area; develops the skills of analysis, critical thinking and forecasting of future cash flows and the prices of instruments, etc.	5	**LO5,8**		
45	FIN6702 - Corporate Finance	This course aims to provide students with the basic concepts, principles, and approaches to corporate finance, enable students to apply the relevant principles and approaches to solving corporate finance problems, and help students improve their overall ability.	6	**LO5,8**		
46	FIN6705 - Financial statement analysis	This course reveals the keys to effective analysis and understanding of financial statements. This course is aimed at developing the financial and analytical skills necessary for business success.	5	**LO6,8**		
47	FIN6703 - Financial management	The course will examine the following issues: course is designed as continuation of the course corporate finance.The course financial management pays attention to competencies required for finance department within the firm. Course omits the basics topics of introduction to finance and corporate finance and focuses heavily on investment appraisal and getting students aquainted with the concepts of risks and return. Course covers some topics of derivatives and hedging. Course keeps balance between verbal and numerical part of theory. However, as the theory of fianancial management requires course contains plenty of calculations.	5	**LO6,8**		
48	FIN6709 - Financial risk management	This course discusses quantitative methods for assessing various types of financial risks (market, credit and operational risks). It will also consider how risk measurement and management tools can be used to actively manage the risk and return profile of financial institutions (banks, insurance companies, pension funds, etc.)	5	**LO4,5,8**		
49	FIN6724 - Digital Banking Systems and Innovation	This course explores the evolution of banking through digital technologies. It covers online and mobile banking, neobanks, payment systems, and digital onboarding. Students learn how innovation is reshaping financial services, customer interaction, cybersecurity, and regulatory compliance in the digital banking era.	4	**LO6,7,9**		
Cycle of major disciplines (MD)						
Elective component (EC)						
50	FIN6710 - Financial investments	This course is intended to provide a general overview of capital markets, financial instruments, and investment process. We will emphasize the role of modern financial theory	5	**LO5,8**		

		in portfolio management. Therefore, we will cover a wide range of topics such as, financial markets, trading, security valuation, diversification and asset allocation, modern asset pricing models, performance measurement, active portfolio management, financial derivatives, and fixed income securities.				
51	FIN6711 - Financial modeling	The course covers the following main topics: construction and examination of the characteristics of distributions of returns; calculation of the variance co-variance matrix and its application to select portfolios; test of market efficiency using simple tests; developing, constructing and running event studies; estimating betas and calculating a firm's cost of capital; calculating the value of an option using the Black-Scholes model; applying Monte Carlo methods to financial problems; using and developing spreadsheet based solutions to financial problems; using Visual Basic for Applications (VBA) techniques.	5	**LO5,8**		
52	FIN6723 - Digital and Traditional Insurance Systems	This course examines both traditional and digital insurance models. It covers core insurance principles alongside modern innovations such as InsurTech platforms, automated underwriting, and digital claims processing. Students explore how technology enhances risk assessment, customer service, and regulatory compliance in insurance.	5	**LO5,6,7,9**		
53	FIN6721 - Regulatory Technology and Compliance Automation	This course explores the role of RegTech in automating regulatory compliance. Students learn how technologies like AI, blockchain, and data analytics streamline reporting, monitoring, and risk assessment. Emphasis is placed on financial regulations, digital identity, and the evolving regulatory environment in fintech.	5	**LO3,7,9**		
54	FIN6103 - Database Technologies in Financial Systems	This course introduces database concepts applied to financial systems. Students learn data modeling, SQL, and the structure of financial databases used in banking, trading, and compliance. Emphasis is placed on data integrity, security, and efficient access to critical financial information.	5	**LO3,6,7,9**		
55	FIN6104 - Data Processing for FinTech with Python	This course focuses on using Python for processing financial data. Students learn data cleaning, transformation, and analysis using libraries like Pandas and NumPy. Applications include financial reporting, time series handling, and automating data workflows in FinTech environments.	5	**LO4,6,7**		
56	FIN6725 - Derivatives Markets and Algorithmic Trading	This course covers derivative instruments such as futures, options, and swaps, along with algorithmic trading strategies. Students learn pricing models, hedging techniques, and how algorithms are used for market execution and risk management in fast-paced trading environments.	5	**LO4,5,7,8**		
57	FIN6726 - Traditional and Automated Portfolio Management	This course blends traditional portfolio theory with automated investment platforms. Students learn asset allocation, diversification, and risk-return analysis, alongside how robo-advisors use algorithms and client data to build portfolios. Compliance, automation, and the role of human oversight are also explored.	5	**LO6,7,8,9**		

12. Curriculum of the educational program (Platonus)

WORKING CURRICULUM
for the 2025-2029 academic years

№	Module name	Discipline cycle	Discipline component	Code of discipline	Name of discipline	Academic credit	Academic study period	Control in the academic period — Exams	Total	Lectures	Laboratory training	Practice	Practice	IWST	IWS	1	2	3	4	5	6	7	8
																15	15	15	15	15	15	15	15
					Minor module for disciplines																		
					General modules																		
1		GED	RC	LAN6001A	Foreign language	5	1	1	5/150			45		15	90	5							
2		GED	RC	LAN6001KR	Kazakh (Russian) language	5	1	1	5/150			45		15	90	5							
3	OOM6002 Language and ICT skills development module	GED	RC	LAN6002A	Foreign language	5	2	2	5/150			45		15	90		5						
4		GED	RC	LAN6002KR	Kazakh (Russian) language	5	2	2	5/150			45		15	90		5						
5		GED	RC	ICT6001	Information and Communication Technologies	5	2	2	5/150	15	30			15	90		5						
6		GED	RC	HK6002	History of Kazakhstan	5	1	1	5/150	15		30		15	90	5							
7	OOM6001 Module of social and cultural development	GED	RC	SPS6006	Cultural studies-Psychology	4	2	2	4/120	15		30		15	60		4						
8		GED	RC	SPS6007	Sociology-Political science	4	3	3	4/120	15		30		15	60			4					
9		GED	RC	SPS6001	Philosophy	5	5	5	5/150	15		30		15	90					5			
10		GED		LAW6007	Fundamentals of law and anti-corruption culture			1	5/150	15		30		15	90								
11	OOM6004 Module of personal and social development	GED	EC	JUR6413	Fundamentals safety of life activity			1	5/150	15		30		15	90								
12		GED		JUR 6505	Ecology and sustainable development	5	1	1	5/150	15		30		15	90	5							
13		GED		HUM6400	Inclusive education			1	5/150	15		30		15	90								
14		GED		ECO6007	Foundation of economics and financial literacy			1	5/150	15		30		15	90								
15	OOM6003 Module of physical culture	GED	RC	PhC6005	Physical Culture	4	2	2	4/120			45		15	60		4						
16		GED	RC	PhC6006	Physical Culture	4	3	3	4/120			45		15	60			4					
					Modules of specialty/education programm																		
17		BD	UC	ACC6701	Business and Technology (ACCA)	5	1	1	5/150	15		30		15	90	5							
18		BD	UC	ACC6704	Financial accounting	5	5	5	5/150	15		30		15	90					5			
19		BD		ACC6703	Management accounting			6	5/150	15		30		15	90								
20	BM6721 Module of Accounting and Audit	BD	EC	FIN6714	Tax and taxation	5	6	6	5/150	15		30		15	90						5		
21		BD		FIN6718	Audit			6	5/150	15		30		15	90								
22		BD	EC	SFT6143	ERP Fundamentals (ERP-1)	4	8	8	4/120	15		30		15	60								4
23		BD		MGT6732	1C: Accounting			8	4/120	15		30		15	60								
24		BD	UC	MAT6009	Mathematics 1	5	1	1	5/150	15		30		15	90	5							
25	BM6722 Module of Mathematical Preparation	BD	UC	MAT6010	Mathematics 2	5	2	2	5/150	15		30		15	90		5						
26		BD	UC	MAT6012	Statistics	5	3	3	5/150	15		30		15	90			5					
27		**BD**	**UC**	**EP6701**	**Educational practice**	**2**	**2**		**2/60**			60					2						
28	BM6723 Module of Practice	**BD**	**UC**	**IP 6702**	**Internship**	**4**	**4**		**4/120**			120							4				
29		**BD**	**UC**	**IP6703**	**Internship**	**4**	**6**		**4/120**			120									4		
30		BD	UC	LAW6001	Entrepreneural law	3	3	3	3/90	15		15		15	45			3					
31	BM6724 Module of Business Fundamentals	BD	UC	MGT6701	Management	5	3	3	5/150	15		30		15	90			5					
32		BD	UC	MRK6701	Marketing	5	3	3	5/150	15		30		15	90			5					
33	BM6725 Module of Professional English	BD	UC	LAN6001PA	Professionally oriented foreign language 1	5	3	3	5/150	15		30		15	90			5					

№	Module	Cycle	Comp	Code	Discipline	Credits		Sem	Hours	L	Lab	P	Pr	SRO	IWS	1	2	3	4	5	6	7	8
34		BD	UC	LAN6001PA2	Professionally oriented foreign language 2	5	4	4	5/150	15		30		15	90					5			
35		BD	UC	SFT6322	Introduction of artificial intelligence	5	4	4	5/150	15		30		15	90					5			
36	BM6726 Module of Introductory Financial Technologies	BD	UC	FIN6716	Introduction to FinTech	5	5	5	5/150	15		30		15	90						5		
37		BD	EC	FIN6101	Blockchain Technologies and Smart Contracts	5	6	6	5/150	15		30		15	90						5		
38		BD		FIN6102	Artificial Intelligence and Machine Learning in Finance			6	5/150	15		30		15	90								
39	BM6727 Module of Economics	BD	UC	ECO6701	Microeconomics	5	4	4	5/150	15		30		15	90					5			
40		BD	UC	ECO6702	Macroeconomics	5	5	5	5/150	15		30		15	90						5		
41	BM6729 Module of Research and Analytics	BD	UC	FIN6722	Financial Analytics and Data Visualization	5	7	7	5/150	15		30		15	90							5	
42		BD	UC	RM6701	Research Methodology	4	7	7	4/120	15		30		15	60							4	
43		MD	UC	FIN6701	Finance	5	4	4	5/150	15		30		15	90					5			
44		MD	UC	FIN6704	Financial markets and intermediaries	5	4	4	5/150	15		30		15	90					5			
45	PM6721 Module of Finance	MD	UC	FIN6702	Corporate Finance	6	5	5	6/180	30		30		15	105						6		
46		MD	UC	FIN6705	Financial statement analysis	5	6	6	5/150	15		30		15	90						5		
47		MD	UC	FIN6703	Financial management	5	6	6	5/150	15		30		15	90						5		
48		MD	UC	FIN6709	Financial risk management	5	7	7	5/150	15		30		15	90							5	
49		MD	EC	FIN6710	Financial investments	5	7	7	5/150	15		30		15	90							5	
50		MD		FIN6711	Financial modeling			7	5/150	15		30		15	90								
51		MD	EC	FIN6723	Digital and Traditional Insurance Systems	5	7	7	5/150	15		30		15	90							5	
52		MD		FIN6721	Regulatory Technology and Compliance Automation			7	5/150	15		30		15	90								
53		MD	UC	FIN6724	Digital Banking Systems and Innovation	4	8	8	4/120	15		30		15	60								4
54	PM6722 Module of Applied Financial Technologies	**MD**	**UC**	**PP6704**	**Undergraduate practice**	**5**	**8**		**5/150**				150										5
55		MD	EC	FIN6103	Database Technologies in Financial Systems	5	8	8	5/150	15	30			15	90								5
56		MD		FIN6104	Data Processing for FinTech with Python			8	5/150	15	30			15	90								
57		MD	EC	FIN6725	Derivatives Markets and Algorithmic Trading	5	8	8	5/150	15		30		15	90								5
58		MD		FIN6726	Traditional and Automated Portfolio Management			8	5/150	15		30		15	90								
					Additional modules beyond qualification																		
					Modules of choice																		
59		BD	EC	MNR6701	Minor 1	5	5	5	5/150	15		30		15	90					5			
60	BM6728 Module of Minor	BD	EC	MNR6702	Minor 2	5	6	6	5/150	15		30		15	90						5		
61		BD	EC	MNR6703	Minor 3	5	7	7	5/150	15		30		15	90							5	
					Weekly average workload at hours											0	0	0	0	0	0	0	0
1					**General education disciplines (GED)**	**56**		**12**	**1530**	**75**	**30**	**390**	**0**	**165**	**870**	**20**	**23**	**8**	**0**	**5**	**0**	**0**	**0**
					Required component (GED/RC)	51		11	1530	75	30	390	0	165	870	15	23	8	0	5	0	0	0
					University component (GED/UC)	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Elective component (GED/EC)	5		1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
2					**Basic disciplines (BD)**	**116**		**22**	**3060**	**285**	**0**	**555**	**300**	**285**	**1635**	**10**	**7**	**23**	**19**	**20**	**19**	**14**	**4**
					Required component (BD/RC)	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					University component(BD/UC)	87		16	2610	240	0	465	300	240	1365	10	7	23	19	15	4	9	0
					Elective component (BD/EC)	29		6	450	45	0	90	0	45	270	0	0	0	0	5	15	5	4
3					**Major disciplines (MD)**	**60**		**11**	**1200**	**120**	**0**	**210**	**150**	**105**	**615**	**0**	**0**	**0**	**10**	**6**	**10**	**15**	**19**
					Required component (MD/RC)	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					University component (MD/UC)	40		7	1200	120	0	210	150	105	615	0	0	0	10	6	10	5	9
					Elective component (MD/EC)	20		4	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10

4	Disciplines for the formation of professional competencies (BDFPC)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Required component (BDFPC/RC)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	University component (BDFPC/UC)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Elective component (BDFPC/EC)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Disciplines of personal development and the formation of leadership qualities(BDPD)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Required component (BDFPC/RC)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	University component (BDFPC/UC)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Elective component (BDFPC/EC)				0		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total on curriculum				232				5790	480	30	1155	450	555	3120	30	30	31	29	31	29	29	23	
6	Additional courses															Academic period			Number of hours			Number of weeks		
7	Module of final certification (MoFC)																		240					
	Total including FC																		7200					

WORKING CURRICULUM
for the 2025-2028 academic years

Module code	Module name	Discipline cycle	Discipline component	Code of subject	Subject name	Academic credits	Academic study period	Control in the academic period			Number of hours							Distribution of credits per academic period					
								Exams	Differentiated test	Term paper/project	Total	Lectures	Laboratory trainings	Practice	Practice	Independent work of students with	Independent work of students	1 course		2 course		3 course	
																		1	2	3	4	5	6
																		15	15	15	15	15	15
					Minor module for disciplines																		
					General modules																		
1		GER	RC	LAN6001A	Foreign language	5	1	1			5/150			45		15	90	5					
2		GER	RC	LAN6001KR	Kazakh (Russian) language	5	1	1			5/150			45		15	90	5					
3	OOM6002 Language and ICT skills development module	GER	RC	ICT6001	Information and Communication Technologies	5	2	2			5/150	15	30			15	90		5				
4		GER	RC	LAN6002KR	Kazakh (Russian) language	5	2	2			5/150			45		15	90		5				
5		GER	RC	LAN6002A	Foreign language	5	2	2			5/150			45		15	90		5				
6		GER	RC	HK6002	History of Kazakhstan	5	1	1			5/150			45		15	90	5					
7	OOM6001 Module of social and cultural development	GER	RC	SPS6006	Cultural studies-Psychology	4	2	2			4/120	15		30		15	60		4				
8		GER	RC	SPS6007	Sociology-Political science	4	3	3			4/120	15		30		15	60			4			
9		GER	RC	SPS6001	Philosophy	5	5	5			5/150	15		30		15	90					5	
10		GER		JUR6413	Fundamentals safety of life activity			1			5/150	15		30		15	90						
11	OOM6004 Module of personal and social development	GER		JUR 6505	Ecology and sustainable development			1			5/150	15		30		15	90						
12		GER	EC	HUM6400	Inclusive education	5	1	1			5/150	15		30		15	90	5					
13		GER		LAW6007	Fundamentals of law and anti-corruption culture			1			5/150	15		30		15	90						
14		GER		ECO6007	Foundation of economics and financial literacy			1			5/150	15		30		15	90						
15	OOM6003 Module of physical culture	GER	RC	PhC6005	Physical Culture	4	2	2			4/120			45		15	60		4				
16		GER	RC	PhC6006	Physical Culture	4	3	3			4/120			45		15	60			4			
					Modules of specialty/education programm																		

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№	Module	Cycle	Comp	Code	Discipline	Cr	Sem	Sem	Total	Lec	Lab	Pr	Cont	SROP	SRO	1	2	3	4	5	6	7	8
17	BM6724 Module of Business Fundamentals	BD	UC	MGT6701	Management	5	1	1	5/150	15		30		15	90	5							
18		BD	UC	LAW6001	Entrepreneural law	3	1	1	3/90	15		15		15	45	3							
19		BD	UC	MRK6701	Marketing	5	3	3	5/150	15		30		15	90			5					
20	BM6721 Module of Accounting and Audit	BD	UC	ACC6701	Business and Technology (ACCA)	5	1	1	5/150	15		30		15	90	5							
21		BD	UC	ACC6704	Financial accounting	5	3	3	5/150	15		30		15	90			5					
22		BD		ACC6703	Management accounting			4	5/150	15		30		15	90								
23		BD	EC	FIN6714	Tax and taxation	5	4	4	5/150	15		30		15	90				5				
24		BD		FIN6718	Audit			4	5/150	15		30		15	90								
25		BD	EC	SFT6143	ERP Fundamentals (ERP-1)	4	6	6	4/120	15		30		15	60						4		
26		BD		MGT6732	1C: Accounting			6	4/120	15		30		15	60								
27	BM6722 Module of Mathematical Preparation	BD	UC	MAT6009	Mathematics 1	5	1	1	5/150	15		30		15	90	5							
28		BD	UC	MAT6010	Mathematics 2	5	2	2	5/150	15		30		15	90		5						
29		BD	UC	MAT6012	Statistics	5	3	3	5/150	15		30		15	90			5					
30	BM6726 Module of Introductory Financial Technologies	BD	UC	SFT6322	Introduction of artificial intelligence	5	2	2	5/150	15		30		15	90		5						
31		BD	UC	FIN6716	Introduction to FinTech	5	3	3	5/150	15		30		15	90			5					
32		BD	EC	FIN6102	Artificial Intelligence and Machine Learning in Finance	5	4	4	5/150	15	30			15	90				5				
33		BD		FIN6101	Blockchain Technologies and Smart Contracts			4	5/150	15	30			15	90								
34	BM6727 Module of Economics	BD	UC	ECO6701	Microeconomics	5	2	2	5/150	15		30		15	90		5						
35		BD	UC	ECO6702	Macroeconomics	5	3	3	5/150	15		30		15	90			5					
36	BM6723 Module of Practice	BD	**UC**	**EP6701**	**Educational practice**	**2**	**2**		**2/60**				60				2						
37		BD	**UC**	**IP6703**	**Internship**	**8**	**4**		**8/240**				240						8				
38	BM6725 Module of Professional English	BD	UC	LAN6001PA	Professionally oriented foreign language 1	5	3	3	5/150	15		30		15	90			5					
39		BD	UC	LAN6001PA2	Professionally oriented foreign language 2	5	4	4	5/150	15		30		15	90				5				
40	BM6729 Module of Research and Analytics	BD	UC	RM6701	Research Methodology	4	5	5	4/120	15		30		15	60					4			
41		BD	UC	FIN6722	Financial Analytics and Data Visualization	5	5	5	5/150	15		30		15	90					5			
42	PM6721 Module of Finance	MD	UC	FIN6701	Finance	5	4	4	5/150	15		30		15	90				5				
43		MD	UC	FIN6704	Financial markets and intermediaries	5	4	4	5/150	15		30		15	90				5				
44		MD	UC	FIN6709	Financial risk management	5	5	5	5/150	15		30		15	90					5			
45		MD	UC	FIN6702	Corporate Finance	6	5	5	6/180	30		30		15	105					6			
46		MD	EC	FIN6710	Financial investments	5	5	5	5/150	15		30		15	90					5			
47		MD		FIN6711	Financial modeling			5	5/150	15		30		15	90								
48		MD	UC	FIN6705	Financial statement analysis	5	6	6	5/150	15		30		15	90						5		
49		MD	UC	FIN6703	Financial management	5	6	6	5/150	15		30		15	90						5		
50	PM6722 Module of Applied Financial Technologies	MD	EC	FIN6721	Regulatory Technology and Compliance Automation	5	5	5	5/150	15		30		15	90					5			
51		MD		FIN6723	Digital and Traditional Insurance Systems			5	5/150	15		30		15	90								
52		MD	UC	FIN6724	Digital Banking Systems and Innovation	4	6	6	4/120	15		30		15	60						4		
53		MD	UC	**PP6704**	**Undergraduate practice**	**5**	**6**		**5/150**				150								5		

№	Module			Code	Discipline	Credits		Sem		Cr/Hrs							1	2	3	4	5	6
54		MD	EC	FIN6726	Traditional and Automated Portfolio Management	5	6	6		5/150	15		30		15	90						5
55		MD		FIN6725	Derivatives Markets and Algorithmic Trading			6		5/150	15		30		15	90						
56		MD	EC	FIN6103	Database Technologies in Financial Systems	5	6	6		5/150	15		30		15	90						5
57		MD		FIN6104	Data Processing for FinTech with Python			6		5/150	15		30		15	90						
Additional modules beyond qualification																						
Modules of choice																						
58	BM6728 Module of Minor	BD	EC	MNR6701	Minor 1	5	3	3		5/150	15		30		15	90			5			
59		BD	EC	MNR6702	Minor 2	5	4	4		5/150	15		30		15	90				5		
60		BD	EC	MNR6703	Minor 3	5	5	5		5/150	15		30		15	90					5	
Weekly average workload at hours																	0	0	0	0	0	0
1					**General education disciplines (GED)**	**56**	**12**	**0**	**0**	**1530**	**60**	**30**	**405**	**0**	**165**	**870**	**20**	**23**	**8**	**0**	**5**	**0**
					Required component (GED/RC)	51	11	0	0	1530	60	30	405	0	165	870	15	23	8	0	5	0
					University component (GED/UC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Elective component (GED/EC)	5	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
2					**Basic disciplines (BD)**	**116**	**22**	**0**	**0**	**3060**	**285**	**0**	**555**	**300**	**285**	**1635**	**18**	**17**	**35**	**28**	**14**	**4**
					Required component (BD/RC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					University component(BD/UC)	87	16	0	0	2610	240	0	465	300	240	1365	18	17	30	13	9	0
					Elective component (BD/EC)	29	6	0	0	450	45	0	90	0	45	270	0	0	5	15	5	4
3					**Major disciplines (MD)**	**60**	**11**	**0**	**0**	**1200**	**120**	**0**	**210**	**150**	**105**	**615**	**0**	**0**	**0**	**10**	**21**	**29**
					Required component (MD/RC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					University component (MD/UC)	40	7	0	0	1200	120	0	210	150	105	615	0	0	0	10	11	19
					Elective component (MD/EC)	20	4	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10
4					**Disciplines for the formation of professional competencies (BDFPC)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
					Required component (BDFPC/RC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					University component (BDFPC/UC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Elective component (BDFPC/EC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5					**Disciplines of personal development and the formation of leadership qualities(BDPD)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
					Required component (BDFPC/RC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					University component (BDFPC/UC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Elective component (BDFPC/EC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Total on curriculum	232			0	0	5790	465	30	1170	450	555	3120	38	40	43	38	40	33
6					**Additional courses**										Academic period	Number of hours			Number of weeks			
7					**Module of final certification (MoFC)**											240						
					Total including FC											7200						

13. Additional Educational Programs (Minor)

The name of the AEP (Minor), indicating the list of disciplines forming the Minor	Number of credits AEP / number of credits in the discipline	Description, Competencies generated by the AEP, learning outcomes
The name of the AEP (Minor)	**15**	
- Code and name of the discipline (discipline cycle)	5	
- Code and name of the discipline (discipline cycle)	5	
- Code and name of the discipline (discipline cycle)	5	