



Syllabus Course Program



Management Information Systems in Finance and Accounting

Specialty

072 – Finance, banking and insurance

Institute

Educational and Scientific Institute of Economics,
Management and International Business

Educational program

Finance and banking

Department

Accounting and finance

Level of education

Master's level

Course type

Special (professional), Mandatory

Semester

1

Language of instruction

English, Ukrainian

Lecturers and course developers



Ievgen Strokov

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Candidate of Economic Sciences, Associate Professor, Associate Professor of the Department of Accounting and Finance (NTU "KhPI")

Work experience of 18 years

The author of more than 50 scientific and educational and methodical publications. Leading lecturer on courses: "Business digitalization", "Management Information systems in finance and accounting", "Information systems in financial sector", "Accounting software", "Electronic document management", "Financial technologies in digital economy"

[More about the lecturer on the department's website](#)

General information

Summary

The discipline is aimed at preparing specialists who are able to analyze current trends in the software market for business entities; to work in the field of building and functioning of information systems and computer technologies and the possibilities of their use in financial management and Accounting.

Course objectives and goals

The purpose of teaching the academic discipline " Management Information Systems in Finance and Accounting" is the formation knowledge and practical skills to creation and operation of information systems and computer technologies and the possibilities of their use in finance and accounting

Format of classes

Lectures, laboratory classes, consultations. Final control - exam

Competencies

GC04. Ability to identify, state and solve problems.

GC05. Ability to make informed decisions.

SC01. Ability to use the fundamental laws of development of finance, banking and insurance in combination with research and management tools for professional and academic activities.

SC02. Ability to use theoretical and methodological tools for financial activities assessment and modeling.

SC03. Ability to apply management skills in the field of finance, banking and insurance.

SC05. Ability to assess the limits of their own professional competence and improve their professional skills.

SC06. Ability to apply interdisciplinary approaches to solving complex problems in the field of finance, banking and insurance.

SC07. Ability to search, use and interpret information necessary for solving professional and academic problems in the field of finance, banking and insurance.

SC08. Ability to apply innovative approaches in the field of finance, banking and insurance.

SC09. Ability to develop technical specifications for the design of information systems in the field of finance, banking and insurance.

Learning outcomes

PL 01. To apply fundamental laws of development of finance, banking and insurance in combination with research and management tools for professional and academic activities.

PL 02. To be aware of the latest achievements, concepts and academic methodologies in the field of finance, banking and insurance.

PL 03. To adapt and modify existing academic approaches and methods to specific situations occurred during work.

PL 04. To search, process, systematize and analyze information necessary for solving professional and academic problems in the field of finance, banking and insurance.

PL 05. To communicate fluently in a foreign language on professional and academic issues, to present and to discuss research results.

PL 06. To present research results in an accessible and reasoned manner orally and in writing, to participate in professional discussions.

PL 07. To solve ethical dilemmas based on the law, ethical principles and universal values

PL 08. To be able to apply and manage innovative approaches in the field of finance, banking and insurance.

PL 09. To apply management skills in the field of finance, banking and insurance.

PL 10. To identify and model financial activities of business entities.

PL 11. To apply in-depth knowledge in decision-making in the field of financial, banking and insurance management.

PL 12. To justify the choice of management decision options in the field of finance, banking and insurance and to evaluate their effectiveness, taking into account the goals, existing constraints, legal and ethical aspects.

PL 13. To assess the degree of tasks complexity at planning and results processing stages.

Student workload

The total volume of the course is 150 hours (5 ECTS credits): lectures - 32 hours, practical classes - 32 hours, self-study - 86 hours.

Course prerequisites

The discipline Management Information Systems in Finance and Accounting in accordance with the structural and logical scheme of teaching disciplines provided by the curriculum, is taught in the first year in the first semester

Features of the course, teaching and learning methods, and technologies

Interactive lectures with presentations, discussions, seminars, individual and team work, research work, work with literature and information sources, problem-based learning.

Program of the course

Topics of the lectures

Topic 1. Basic concepts of digital economy

Topic 2. Spreading of new business models

Topic 3. Digital technologies in public administration

Topic 4. Labor market and human resources competencies in the digital age

Topic 5. The essence and features of the fourth industrial revolution

Topic 6. Digital business transformation
Topic 7. Introduction to FinTech
Topic 8. FinTech technologies
Topic 9. E-commerce
Topic 10. RegTech and SupTech
Topic 11. Modern payment systems
Topic 12. Cryptocurrencies and their legal regulation
Topic 13. Place of Big Data in Finance and Accounting
Topic 14. Artificial intelligence systems
Topic 15. The essence of the Internet of Things
Topic 16. Prospects for the use of IoT in Finance and Accounting

Topics of the workshops

Workshops are not provided

Topics of the laboratory classes

Topic 1. Digital economy and economic growth
Topic 2. Digital systems in public and regional finance
Topic 3. Assessment of the development of the digital economy in Ukraine
Topic 4. Scenarios of labor market development in the digital economy
Topic 5. Financial sector in the context of digitalization
Topic 6. The importance of digital finance for the country's economic processes
Topic 7. Digitalization of finance in the enterprise
Topic 8. FinTech: Benefits for customers
Topic 9. The role of social media marketing
Topic 10. Development of the banking system in the context of digitalization
Topic 11. Digitalization in payment technologies
Topic 12. Development of cryptocurrency markets
Topic 13. Development of the banking system in the context of digitalization
Topic 14. Digitalization of financial services market
Topic 15. Robo-advising and Internet of Things
Topic 16. Philosophy and goals of artificial intelligence

Self-study

OpenAPI: terms of use and prospects; Open banking; Security issues in information systems; Introduction to InsurTech; Ukraine and the fourth industrial revolution; E-commerce and online trading; Regulatory features of FinTech; The essence of digital marketing; Common and distinctive features with e-commerce, digital marketing and internet marketing; Digitalization of Ukraine's banking sector; Evaluating the effectiveness of content placement on various platforms; Blockchain in insurance; AI and BigData; The place of Big Data in the management decision-making system; Main research areas in the field of AI; Potentially negative consequences of artificial intelligence development for society

Course materials and recommended reading

1. LE, Quang Bon, et al. "The Determinants of management information systems effectiveness in small-and medium-sized enterprises." *The Journal of Asian Finance, Economics and Business* 7.8 (2020): 567-576.
2. Puspitawati, Lilis. "Strategic information moderated by effectiveness management accounting information systems: Business strategy approach." *Jurnal Akuntansi* (2020).
3. Khalid, Bilal, and Michal Kot. "The impact of accounting information systems on performance management in the banking sector." *IBIMA Business Review* 578902 (2021).
4. Ibrahim, Fahmi, Diyana Najwa Haji Ali, and Nur Suaidah Awang Besar. "Accounting information systems (AIS) in SMEs: Towards an integrated framework." *International Journal of Asian Business and Information Management (IJABIM)* 11.2 (2020): 51-67.
5. Turner, Leslie, Andrea B. Weickgenannt, and Mary Kay Copeland. *Accounting information systems: controls and processes*. John Wiley & Sons, 2022.

6. Berdik, David, et al. "A survey on blockchain for information systems management and security." *Information Processing & Management* 58.1 (2021): 102397.
7. Rana, Nripendra P., et al. "Understanding dark side of artificial intelligence (AI) integrated business analytics: assessing firm's operational inefficiency and competitiveness." *European Journal of Information Systems* 31.3 (2022): 364-387.
8. Kraus, Nataliia, and Kateryna Kraus. "Digitalization of business processes of enterprises of the ecosystem of Industry 4.0: virtual-real aspect of economic growth reserves." *WSEAS Transactions on Business and Economics* 18 (2021): 569-580.
9. Bouncken, Ricarda B., Sascha Kraus, and Norat Roig-Tierno. "Knowledge-and innovation-based business models for future growth: Digitalized business models and portfolio considerations." *Review of Managerial Science* 15.1 (2021): 1-14.
10. Westerlund, Mika. "Digitalization, internationalization and scaling of online SMEs." *Technology Innovation Management Review* 10.4 (2020).
11. Bican, Peter M., and Alexander Brem. "Digital business model, digital transformation, digital entrepreneurship: Is there a sustainable "digital"?" *Sustainability* 12.13 (2020): 5239.
12. Jonathan, Gideon Mekonnen, Lazar Rusu, and Wim Van Grembergen. "Business-IT alignment and digital transformation: Setting a research agenda." 29th International Conference on Information Systems Development (ISD2021), València, Spain, September 8-10, 2021. Association for Information Systems, 2021.

Assessment and grading

Criteria for assessment of student performance, and the final score structure

100% Final assessment as a result of Final on-line test (40%) and Continuous assessment (60%).

60% Continuous assessment:

- 50% individual assignments (including essays, reporting on fieldwork, and calculation-graphical task)
- 10% mid-term control (2 online tests)

The exam is on-line and contains: 25 test tasks of various difficulty levels.

Grading scale

Total points	National	ECTS
90-100	Excellent	A
82-89	Good	B
75-81	Good	C
64-74	Satisfactory	D
60-63	Satisfactory	E
35-59	Unsatisfactory (requires additional learning)	FX
1-34	Unsatisfactory (requires repetition of the course)	F

Norms of academic integrity and course policy

The student must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": to demonstrate discipline, good manners, kindness, honesty, and responsibility. Conflict situations should be openly discussed in academic groups with a lecturer, and if it is impossible to resolve the conflict, they should be brought to the attention of the Institute's management.

Regulatory and legal documents related to the implementation of the principles of academic integrity at NTU "KhPI" are available on the website: <http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/>

Approval

Approved by

Date, signature

Head of the department
Oleksandr MANOYLENKO

Date, signature

Guarantor of the educational
program
Tetiana NAZAROVA

