



## Syllabus Course Program



# Economic Informatics

**Specialty**

073 – Management

**Educational program**

Business Administration

**Level of education**

Bachelor's level

**Semester**

2

**Institute**

Institute of Education and Science in Economics,  
Management and International Business

**Department**

Tourism and Hospitality Business (203)

**Course type**

General, Mandatory

**Language of instruction**

English

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## Lecturers and course developers

**Tatiana Chaika**

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PhD in Economic Sciences, Associate Professor, Associate Professor of  
the Department of Tourism and Hospitality Business

Tatiana Chaika has authored or co-authored more than 90 scientific publications. She has more than 24 years of academic experience. She teaches courses in Economic Statistics, Economic Informatics, Global Hotel and Restaurant Business, International Tourism, Special Interest Tourism, Catering, Event-Management, Optimization Methods and Models in Business Performance Management, Start-up in Hospitality.

[More about the lecturer on the department's website:](https://web.kpi.kharkov.ua/tourism/dotsent-chajka-tetyana-yuriyivna/)

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## General information

### Summary

This course introduces students to the concept of management information systems and its impact on the business processes of an organization. The course covers such issues as the concept of management information systems and its impact on the business processes of an organization; information technology and its components; the role of information systems and information technology in organizational strategy. A special emphasis is paid to the use of information technology in practical economic activities. Particular attention is paid to the use of information technology in practical economic activity..

### Course objectives and goals

- to know the essence and components of management information systems;
- to understand the strategic value of information systems in an organisation;
- to exploit the advantages of management information systems in the management of the organisation;
- to analyse the impact of information systems on organisational performance;
- to evaluate trends in information systems that will affect the next generation of business..

### Format of classes

Lectures, laboratory works, consultations, independent work. Final control in the form of an exam.

## Competencies

GC03. The ability to abstract thinking, analysis, synthesis.

GC04. The ability to apply knowledge in practical situations.

GC05. Knowledge and understanding the subject area and understanding the professional activity.

GC08. Skills of information and communication technology usage.

GC09. The ability to learn and to master modern knowledge..

## Learning outcomes

LO04. To show skills of identification of problems and justification of management decisions.

LO06. To show skills of search, collecting, and analysis of information, calculation of indicators to substantiate management decisions.

LO16. To demonstrate skills of independent work, flexible thinking, openness to new knowledge, be critical and self-critical.

## Student workload

The total volume of the course is 150 hours (5 ECTS credits): lectures - 16 hours, laboratory works - 48 hours, independent work - 86 hours.

## Course prerequisites

Successful completion of the course requires knowledge and practical skills in the following disciplines: Higher Mathematics, Economic Theory, Introduction to Speciality (Introductory Practice).

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

Interactive lectures with presentations, laboratory works, discussions, workshops, 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. Introduction to Economic Informatics. Defining Information Systems.

Topic 2. The Hardware Component.

Topic 3. Software.

Topic 4. Networking and Communication.

Topic 5. Information Systems Security. The Information Security Triad: Confidentiality, Integrity, Availability (CIA).

Topic 6. Data and Databases. Big Data.

Topic 7. Data Warehouses and Data Mining.

Topic 8. Information Systems and Organization Strategy.

Topic 9. Business Processes.

Topic 10. The People in Information Systems.

Topic 11. Information Systems Development. Trends in Information Systems.

### Topics of the workshops

no workshops

### Topics of the laboratory classes

Topic 1. Components of Information Systems.

Topic 2. Tour of a PC.

Topic 3. Types of Software. Operating Systems. Application Software. Utility Software and Programming Software.

Topic 4. Organizational Networking.

Topic 5. Tools for Information Security.

Topic 6. Data Models and Relational Databases. Designing a Database.

Topic 7. Applications of Data Warehouses. Data Mining Applications.

Topic 8. Business Process Management Systems. Collaborative Systems. Decision Support Systems.

Topic 9. Managing Business Process Documentation. ERP Systems.  
 Topic 10. Information Systems Operations and Administration. ERP Management.  
 Topic 11. Systems Development Life Cycle.

## Self-study

Topic 1. The role of Information Systems in management. Can Information Systems bring competitive advantage? Turning Technology into Business Transformation.  
 Topic 2. The Commoditization of the Personal Computer.  
 Topic 3. Productivity Software.  
 Topic 4. History of the Internet.  
 Topic 5. Security Policies  
 Topic 6. Finding Value in Data: Business Intelligence.  
 Topic 7. Data Mining Life Cycle.  
 Topic 8. Using Information Systems for Competitive Advantage.  
 Topic 9. Business Process Re-engineering.  
 Topic 10. Career Paths in Information Systems.  
 Topic 11. Globalization and the Digital Divide.

## Course materials and recommended reading

Compulsory.

1. Laudon, K.C. and Laudon, J.P. (2020) Management Information Systems: Managing the Digital Firm. Pearson.
2. O'Brien, J. A., & Marakas, G. M. (2010). Management Information Systems. McGraw-Hill Irwin.
3. Turban, E., Pollard, C., & Wood, G. R. (2018). Information technology for management: ondemand strategies for performance, growth and sustainability. Hoboken, NJ: Wiley.
4. Van der Heijden, H. (2009). Designing management information systems. GB: Oxford University Press.

Recommended.

1. Coronel, C., & Morris, S. (2016). Database systems: design, implementation, & management. Cengage Learning.
2. Olson, D. (2015). Information systems project management. US: Business Expert Press.
3. Ralph M. Stairs, George W. Reynolds. (2014). Principles of Information Systems. USA: RG.
4. Stair, R., & Reynolds, G. (2015). Fundamentals of information systems. Cengage Learning.

## Assessment and grading

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

100% Final assessment as a result of Final exam (40%) and Continuous assessment (60%).  
 40% Final exam: calculated task (in writing) and its oral presentation.  
 60% Continuous assessment:  
 • 30% practical assessment;  
 10% individual assignments;  
 20% mid-term control (2 online tests).

### 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  
Natalia YAKIMENKO-  
TERESCHENKO

Date, signature

Guarantor of the educational  
program  
Olena LINKOVA