



## COURSE SYLLABUS

### «Information systems and technologies in economics»

Degree of higher education - Bachelor

Specialization 076 - Entrepreneurship, trade and stock exchange activities

Educational program «Entrepreneurship, trade and exchange activity»

Academic year 1, semester 1

Form of study full-time

Number of ECTS credits 5

Language of instruction English

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**Lecturer of the course**

Associate Professor of Department information systems and technologies  
Kharchenko V.V

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**Course page on eLearn**

<https://elearn.nubip.edu.ua/course/view.php?id=3505>

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## COURSE DESCRIPTION

The course «Information systems and technologies in economics» is designed to provide the necessary knowledge about the theory and practice of using modern information systems and technologies in economics. The acquired skills of working on a personal computer with an operating system and major software packages such as MS Word, MS Power Point, MS Excel and online systems will enhance the performance of the tasks by future specialists.

The knowledge and practical experience gained during the course will significantly expand students' opportunities in mastering a set of special disciplines: statistics, mathematical modeling of economic systems, computer programming, databases in management systems, information systems in accounting, etc.

### Competencies of the educational program:

Integrated competency (IC): The ability to solve complex specialized tasks and problems in the spheres of business, trade, and stock exchange activities or in the learning process, which involves the application of theories and methods of organization and functioning of business, trade, and stock exchange structures and is characterized by the complexity and uncertainty of conditions.

General Competences (GC): GC 1. Ability to abstract thinking, analysis and synthesis.  
GC 2. The ability to apply acquired knowledge in practical situations. GC 5. Skills in using information and communication technologies. GC 6. The ability to search, process, and analyze information from various sources.

Professional (special) competencies (PC): PC 2. Ability to choose and use appropriate methods, tools for justifying decisions on creation, functioning of business, trade and exchange structures.

Program learning outcomes (PLO): PLO 1. Use basic knowledge of entrepreneurship, trade and exchange activities and the ability of critical thinking, analysis and synthesis for professional purposes. PLO 2. To apply acquired knowledge for identifying, formulating, and solving tasks in various practical situations in entrepreneurial, trade, and stock exchange activities. PLO 4. To use modern computer and telecommunication technologies for the exchange and distribution of professionally oriented information in the field of entrepreneurship, trade and stock market activity. PLO 5. To organize the search, independent selection, qualitative processing of information from various sources to form databases in the field of entrepreneurship, trade, and stock exchange activities. PLO 12. To possess methods and tools for substantiating managerial decisions regarding the creation and functioning of entrepreneurial, trade, and stock exchange structures.

## COURSE STRUCTURE

Topic	Hours (lecture/laboratory, practical, seminar)	Learning outcomes	Tasks	Assessment
<b>1 Semester</b>				
<b>Module 1</b>				
Theoretical basis of economic informatics	2/4	Know the basic concepts of economic informatics. Be able to change the basic settings of the economist's computer. Be able to effectively use information and communication technologies to organize teamwork online.	Laboratory works. Independent work.	<b>10</b>  <b>5</b>
Basics of working with business documentation	2/4	Know the basic rules of working with business documents. Be able to automatically format large or complex text documents.	Laboratory works. Independent work.	<b>15</b>  <b>5</b>
Visualization of information and basics of working with computer graphics	2/6	Be able to present and visualize economic information, create illustrative graphic material. Properly use digital and statistical information from primary sources, to be able to visualize different types of economic information logically.	Laboratory works. Independent work.	<b>15</b>  <b>5</b>
Basic concepts and role of information systems in management	2/6	Know the basic concepts and role of information systems in management. Be able to classify and use economic information systems. Be able to effectively use information and communication technologies to organize teamwork online.	Laboratory works. Independent work.	<b>10</b>  <b>5</b>
<b>Module 1</b>	<b>-/2</b>	Final modular task from electronic course		<b>30</b>
<b>Module 2</b>				
Presentation and visualization of economic information in MS Excel	2/6	Ability to generate economic information obtained from primary sources using MS Excel spreadsheet editor and Google Spreadsheets; analyze and process statistical data, perform calculations using built-in functions and visualize digital information using diagrams of different types.	Laboratory works. Independent work.	<b>15</b>  <b>5</b>
Using spreadsheet functions for data analysis	2/7	Be able to use a set of logical functions for more complex data calculation. Apply financial functions to automate the calculation of financial transactions. Be able to perform conditional formatting over economic information.	Laboratory works. Independent work.	<b>20</b>  <b>5</b>
Organization of databases in MS Excel	3/8	Know the technology of economic analysis using MS Excel. Be able to analyze data using summary tables, filters; apply general and conditional functions for working with arrays and functions for working with databases.	Laboratory works. Independent work. (Non-formal online education)	<b>20</b>  <b>5</b>  <b>+15</b>
<b>Module 2</b>	<b>-/2</b>	Final modular task from electronic course		<b>30</b>
<b>Total for 1 semester</b>				<b>70</b>
<b>Exam</b>				<b>30</b>
<b>Total for course</b>				<b>100</b>

## ASSESSMENT POLICY

<b><i>Policy regarding deadlines and resist:</i></b>	Assignments submitted after the deadline without valid reasons will be graded lower. Resetting of modules will be allowed with the permission from the lecturer and in the presence of valid reasons (e.g. medical reasons).
<b><i>Academic honesty policy:</i></b>	Cheating during tests and exams is strictly prohibited (including the use of mobile devices). Coursework and research papers must contain correct citations for all sources used.
<b><i>Attendance policy:</i></b>	Class attendance is mandatory. In case of objective reasons (such as illness or international internships), individual learning may be allowed (in online format by the approval of the dean of the faculty).

## SCALE OF ASSESSMENT OF STUDENT KNOWLEDGE

Student rating, points	National grade based on exam results	
	exams	credits
90-100	excellent	passed
74-89	good	
60-73	satisfactory	
0-59	unsatisfactory	not passed

## RECOMMENDED SOURCES OF INFORMATION

1. Soroka P.M., Kharchenko V.V. Information systems in management. Practical work Educational book К, ЦП «Компринт», 2012. 145 p.
2. Kharchenko V.V., Kasatkina O.M. Structure of the personal computer and basics of operating systems Methodical manual К. ЦП «Компринт», 2014 135 с.
3. Kharchenko V.V., Kasatkina O.M. Modern information systems and technologies. Methodical manual К. ЦП «Компринт», 2014 p. 121.
4. The electronic training course, developed on the basis of the Moodle platform, Electronic address: <https://elearn.nubip.edu.ua/course/view.php?id=2749>
5. Касаткін Д.Ю., Глазунова О.Г., Блозва А.І., Касаткіна О.М. «Практикум з інформатики». Навч. посіб. (2 видання) К ЦП «Компринт», 2017. 382 с.
6. Сорока П.М. Харченко В.В. Харченко Г.А. Інформаційні системи і технології в управлінні організацією К. «Компринт», 2019. 518 с.
7. Сорока П.М. Харченко В.В. Практикум з інформаційних систем в управлінні організацією К, ЦП «Компринт» 2017 р. 378 с.
8. Швиденко М.З. «Інформатика та комп'ютерна техніка» Підручник. К. Інтерсервіс, 2014. 647 с.
9. Educational international platform [Electronic resource] Source: <https://www.coursera.org/>
10. Educational international platform [Electronic resource] Source: <https://www.udemy.com>