

MINISTRY OF EDUCATION AND SCIENCE
SIMON KUZNETS KHARKIV NATIONAL UNIVERSITY OF ECONOMICS

APPROVED

at the meeting of department
management, business
and administration
Protocol № 11 of 13.01.2025



Vasyl OTENKO

DIGITAL BUSINESS
Program of the course

Field of knowledge	07 Management and administration
Specialty	073 Management
Study cycle	first (bachelor)
Study programme	Creative Industries Management

Course status
Language

elective

English

Developers:

Cand. Sc. (Economic)
Associate Professor

Oksana MAZORENKO

Cand. Sc. (Economic)
Associate Professor

Kateryna LOHINOVA

Cand. Sc. (Economic)
Associate Professor

Oleksandr PETRENKO

Head of management,
business and administration
department

Tetyana LEPEYKO

Head of study programme

Karina NEMASHKALO

Kharkiv
2025

INTRODUCTION

The program for studying the course "Digital business" is compiled according to the educational program for the preparation of bachelors. The course "Digital business" belongs to the cycle of elective disciplines of bachelor's study.

In an era characterized by rapid technological advancements, globalization, and changing consumer behaviors, the ability to navigate the digital landscape is paramount for success in the business realm. This course is designed to equip students with the essential knowledge and skills to thrive in the digital business environment.

Digital business explores the intersection of technology, strategy, and innovation, providing a comprehensive understanding of how digital tools and platforms shape contemporary business practices. From e-commerce to digital marketing, data analytics to artificial intelligence, this course explores the multifaceted aspects of conducting business in the digital age.

The purpose of the course: the formation of a complete system of knowledge about digital business through the study of the terminological apparatus, the disclosure of all the given concepts and the internal logic of the phenomenon, as well as providing an idea of the organizational and technological model of digital business.

The objectives of the course are:

disclosure of the content of the categorical apparatus of digital business;

study of the internal logic of digital business, driving forces and principles;

study the various organizational models employed in digital business;

investigate the technological frameworks that support digital business operations;

mastering the skills of formulation and evaluation of the digital business strategies for different industry contexts;

acquisition of practical skills of applying different digital business models;

mastering the methods of evaluating the effectiveness of providing digital business.

The object of the course is the activity of an organisation.

The subject of the course is the theoretical concepts of digital business, the methodology of developing and implementing digital business models and strategies.

The learning outcomes and competencies formed by the course are defined in table 1.

Table 1

Learning outcomes and competencies formed by the course

Learning outcomes	Competencies
LO8	GC5, SC7, SC12
LO10	SC10
LO17	GC4
LO18	SC2, SC3
PH20	GC5, GC12, SC12

where LO8 – Apply management methods to ensure the efficiency of an organization’s activities;

LO10 – Possess skills in substantiating effective tools for motivating an organization’s personnel;

LO17 – Conduct research individually and/or in a group under the guidance of a leader;

LO18 – Assess opportunities for using technologies to optimize business efficiency;

LO20 – Coordinate aspects of the activities of creative sector organizations that contribute to their operational effectiveness;

GC4 – Ability to apply knowledge in practical situations;

GC5 – Knowledge and understanding of the subject area and comprehension of professional activity;

GC12 – Ability to generate new ideas (creativity);

SC2 – Ability to analyze the results of an organization’s activities and compare them with the influencing factors of the external and internal environment;

SC3 – Ability to determine prospects for organizational development;

SC7 – Ability to select and use modern management tools;

SC10 – Ability to evaluate performed work, ensure its quality, and motivate the organization’s personnel;

SC12 – Ability to analyze and structure organizational problems and formulate well-grounded decisions.

COURSE CONTENT

Content module 1. Basic concepts and models of digital business.

Topic 1. Digital transformations as a prerequisite for digital business development.

Subject, objectives and tasks of the course.

Stages and impact of the information revolution on Ukraine’s economy. Characteristics and principles of the digital economy. Industry 4.0.

The concept of digital transformations. Basic principles of digital transformation.

Topic 2. Digital business and electronic commerce.

The essence of digital business (d-business). Internal logic of digital business, its components and how they interconnect.

Adopting new digital technology in “new” and “traditional” sectors. Developing competitive advantages through technology.

E-business and electronic commerce. Differences between e-commerce, e-business and d-business.

Topic 3. Digital business models.

Concepts and types of business models.

Digital business models as a tool to explain the rise of internet mega brands and how companies can innovate in the digital era. The impact of digitalization on the organizational structures, processes, and cultures.

Topic 4. Digital strategy of a company.

The concept of digital strategy. Online strategy vs. digital strategy. Elements of digital strategy and their characteristics.

Set of strategies for digital business: marketing, competitive, HR and innovation strategies.

Content module 2. Applied aspects of digital business.

Topic 5. Services and platforms for conducting digital business.

Digital platform. Digital business platform. Benefits of Digital Business Platforms. Types of digital platforms: Aggregation Platforms, Social Platforms, Learning Platforms and Mobilization Platforms. Examples of successful business platforms: Etsy, Upwork, Behance, Patreon, Amazon, Coursera.

Topic 6. Human resources management of a digital company.

Peculiarities of human resources management of a digital company. Personnel motivation of a digital company.

Models of smart working. Digital working place. Digital literacy and digital competence of the company's personnel.

Topic 7. Modern payment systems and the peculiarities of their use in digital business.

Content of electronic payment systems. Purpose of electronic payment systems. Types of electronic payment systems.

Remote banking. Internet banking. Using plastic cards in digital business. Plastic card protection elements. The essence of Internet acquiring. Internet acquiring participants.

Payment platform. Payment gateway. Principles of payment gateway operation. Payment aggregator. Payment systems for the website. Payment systems for an online store.

Topic 8. Digital business security.

Threats to digital business systems. Legal regulation of information protection in digital business.

The essence of digital security and its types. Principles of cyber security.

Computer crime: distinctive features of phishing, skimming, e-mail fraud; fraudulent techniques of buyers. Digital risk management.

Ergonomic principles of work in the era of digital technologies. Methods of protecting information on electronic media. Qualified digital signature.

The list of practical (seminar) studies in the course is given in table 2.

Table 2

The list of practical (seminar) studies

Name of the topic and/or task	Content
Topic 1. Task 1.	Workshop on digital transformations.
Topic 2. Task 2.	Presentation of a digital startup project idea.
Topic 3. Task 3.	Developing a business plan for a startup project based on the use of one of the digital business models.
Topic 4. Task 4.	Justification of the startup's digital strategy.
Topic 5. Task 5.	Digital platforms: modern examples of successes and failures.
Topic 6. Task 6.	Formation of a digital team, to develop a system of personnel motivation.
Topic 7. Task 7.	Choice of payment tools for digital business.
Topic 8. Task 8.	Development of a cyber security strategy for business.
Topic 8. Task 9.	Individual task presentation.

The list of self-studies in the course is given in table 3.

Table 3

List of self-studies

Name of the topic and/or task	Content
Topic 1-8	Search, selection and review of literature on a given topic
Topic 1-8	Preparation for the Express test
Topic 1-8	Preparation for practical (seminars) classes
Topic 1-8	Performing a presentation
Topic 1-8	Preparing to the exam

The number of hours of lectures, practical (seminar) studies and hours of self-study is given in the technological card of the course.

TEACHING METHODS

In the process of teaching the course “Electronic marketing”, in order to acquire certain learning outcomes, to activate the educational process, it is envisaged to use such teaching methods as:

Lecture-discussions (topic 1 – 8), work in small groups (topic 2 – 8), presentations (topic 2 – 8), visualisations (topic 1 – 8), various individual (topic 1 – 8) and group work (topic 1, 2, 6).

During lectures and practical classes, various teaching methods are employed,

including explanatory and illustrative, reproductive, problem-based, partially research-based, and research-based approaches.

FORMS AND METHODS OF ASSESSMENT

The University uses a 100-point cumulative system to assess the learning outcomes of its students.

Current control is carried out during lectures, practical and seminar classes and is aimed at checking the level of readiness of the student to perform a specific job and is evaluated by the amount of points scored:

– for courses with a form of semester control as an exam: the maximum amount is 60 points; the minimum amount required is 35 points.

The final control includes current control and an exam.

Semester control is carried out in the form of a semester exam.

The maximum number of points that a student can receive during the exam is 40 points. The minimum number of points by which an exam is considered passed is 25 points.

The final grade in the course is determined:

– – for disciplines with a form of exam, the final grade is the amount of all points received during the current control and the exam grade.

During the teaching of the course, the following control measures are used:

Current control: express tests (estimated at 8 points (two express tests during the semester – the total maximum number of points – 16)); competence-oriented tasks on topics (four competence-oriented tasks each by 6 points, total maximum number of points – 24); individual task presentation (estimated at 20 points).

Semester control: Grading including Exam (40 points).

More detailed information on the assessment system is provided in technological card of the course.

An example of an exam card and assessment criteria.

Exam card example

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SIMON KUZNETS KHARKIV NATIONAL ECONOMIC UNIVERSITY
First (bachelor) level of higher education
Specialty 073 “Management”
Study Programme “Business Administration”
Course “Digital Business”

Theoretical tests 1. Answer the test questions (1 point)

1. Complete list of domains being of digital transformation include:
 - a) Competition, customers, data, value and patents.
 - b) Customers, data and innovation.

c) Value, competition, customers, data and innovation.

d) Customer networks, big data and innovation.

2. Strategic theme of “build platforms, not just products” is related to the domain of:

a) Competition.

b) Data.

c) Innovation.

d) Value.

3. The customer network strategy of “be faster, be easier, be everywhere, be always on” is best suited to the following customer network behavior:

a) Customize.

b) Access.

c) Respond to desire.

d) Connect.

4. Changes in strategic assumptions from the analog to the digital age in terms of moving from having distinctions between partners and rivals to blurred distinctions and rivals and moving from having assets in the firm to having assets that reside in networks is related to the following domain of digital transformation:

a) Customer networks.

b) Competition.

c) Innovation.

d) Curated offering.

5. The three key characteristics of platforms are:

a) Distinct types of customers, direct interaction and facilitating.

b) Value, competition and customer networks.

c) Curated offering, competition and innovation.

d) Engagement, customization and personalization.

6. According to the classification of four types of platforms, platforms such as Uber and Airbnb are classified as:

a) Exchange.

b) Transaction system.

c) Ad-supported media.

d) Hardware/software standard.

7. Platforms create network effects. When the value of a service goes up as the number of users rises, this is:

a) Indirect network effect.

b) Direct network effect.

c) Multisided network effect.

d) Semidirect network effect.

8. The way in which businesses produce, manage, and utilize information is covered by the following domain of digital transformation:

a) Value.

b) Data.

c) Competition.

d) Inflection points.

9. Key data types for business strategy are:

a) Business process data, product/service data and customer data.

b) Network data, media data and competitor data.

c) Data on direct and indirect effects.

d) Open data, real time data and unstructured data.

10. Distinctive characteristics of the big data are NOT:

a) Structure.

- b) Volume.
- c) Velocity.
- d) Variety.

11. Types of experiments characterized by exploratory nature and informal design are:

- a) Convergent.
- b) Divergent.
- c) Causal.
- d) Confirmatory.

12. Adoption of digital business by established SMEs is generally _____

- a) Less than that in larger businesses.
- b) More than that in larger businesses.
- c) Equal to larger businesses.
- d) None.

13. _____ describes the manner in which business is done to generate revenue and create value.

- a) Digital Business.
- b) Business Model.
- c) Ecommerce.
- d) CRM.

14. IoT stands for:

- a) Information of Things.
- b) Input Output Things.
- c) Internet of Technology.
- d) Internet of Things.

Diagnostic task (12 points)

Develop a Business model Canvas for Spotify Company.

Company Profile

Spotify is one of the world's leading digital platforms for streaming audio content. The company is known primarily for its music streaming service, as well as podcasts and other digital audio. Spotify operates in the global market, providing users with access to millions of tracks and thousands of podcasts across various genres and languages.

Spotify's products and services uniquely complement each other, forming a holistic digital ecosystem that helps users discover new music, personalize their own audio experience and stay emotionally involved. The company actively uses recommendation algorithms, data analytics and artificial intelligence to create individual playlists and content selections.

It's not just about listening to music or podcasts. Spotify is more than just a streaming platform. Everything the company does is subordinated to one simple idea: to give each user the opportunity to find "their sound" and get the most comfortable and personalized audio experience in the digital environment.

Spotify's user loyalty is built on creativity, technological innovation, and a culture of continuous improvement within the company. Through teamwork, experimentation, and a focus on user needs, Spotify continually introduces new formats for audience engagement and supports the development of the global music industry.

Annual revenue – 13.2 billion euros per year.

Other brands – Spotify Premium, Spotify Free, Spotify for Artists, Spotify Podcasts.

Main competitors – Apple Music, YouTube Music, Amazon Music, Deezer.

Company rating – 7 out of 20.

Related products – music streaming, podcasts, personalized playlists.

Heuristic task (14 points)

Develop a roadmap for the digital transformation of a SME operating in the field of design.

Evaluation criteria

The final grade for the exam consists of the sum of the marks for the completion of all tasks, rounded to a whole number according to the rules of mathematics.

Theoretical tests (maximum score is 14 points).

Test tasks consist of 14 tests. **1 point** is given for each correct answer.

Diagnostic task (maximum score is 12 points).

0 – 12 is put for full assimilation of the program material and the ability to navigate in it, conscious application of knowledge to solve practical situations. When performing diagnostic tasks, the student must make correct conclusions about the proposed situation and to formulate his own recommendation to improve the problem. Design of the completed task should be neat.

7 – 9 is put for full assimilation of the program material and ability to navigate in it, conscious application of knowledge to solve the problem. Design of the completed task should be neat.

Mark 4 – 6 treats partial ability to apply theoretical knowledge to solve practical problems, if the task is partially completed; the student's responses demonstrate an understanding of basic material provisions of the course.

1 – 3 is put for acquiring a large piece of material, however, if a student performs a heuristic problem without sufficient understanding of the uses of educational materials and can not correctly perform all tasks.

0 is put for failure to do the task in general.

Heuristic task (maximum score is 14 points).

12 – 14 is put for deep knowledge of program material, the application to respond not only recommended, but additional literature and creative approach, a clear knowledge of concepts, methods, techniques, tools, ability to use them for specific practical problems, solving industrial situations. In the performance of heuristic problem, the student must provide the production version of the proposed decision on the situation and draw the appropriate conclusions. Design questions should be neat, logical and consistent.

9 – 11 is put for full assimilation of the program material and ability to navigate in it, conscious application of knowledge to solve the problem of heuristic, if all requirements are provided for evaluation "8 points" in the presence of minor mistakes (i.e. approach to solving problems is true, but there were inaccuracies in the calculation of certain parameters), or not quite complete withdrawal by the results obtained by solving the problem. Design of the completed task should be neat.

6 – 8 is put for the ability to apply theoretical knowledge to solve the problem of heuristic, if the majority of tasks one performed, and the student's response demonstrated understanding of the conceptual material of the discipline.

3 – 5 is put for acquiring a large piece of material, however, if a student performs a heuristic problem without sufficient understanding of the uses of educational materials and can not correctly perform all tasks.

1 – 2 is put for a partial ability to apply theoretical knowledge to solve practical problems, for not acquiring a large piece of material, if the student can not correctly perform the task facing many difficulties in the analysis of economic phenomena and processes.

0 is put for failure to do the task in general.

RECOMMENDED LITERATURE

Main

1. Цифровізація економіки України: трансформаційний потенціал:

монографія / В. П. Вишневський, О. М. Гаркушенко, С. І. Князєв та ін. ; за ред. В.П. Вишневського, С.І. Князєва; Ін-т екон. пром-сті НАН України. — Київ : Академперіодика, 2020. — 187 с.

2. Garmon T., Hemphill T., Edmundson-Bird D. Digital Business and E-commerce : textbook. 8th ed. Harlow : Pearson Education, 2024. 640 p.

3. Digitalization of the economy: how to improve the country's competitiveness = Цифровізація економіки України: як підвищити конкурентоспроможність країни / edit. by V. P. Vishnevsky and S. I. Kniaziev. — Kyiv : Akadempriodyka, 2021. — 168 p.

4. Zarifis A., Efthymiou L., Cheng X. (eds.). Business digital transformation : selected cases from industry leaders. Cham : Springer, 2023. 341 p.

5. Bagnoli C., Albarelli A., Biazzo S. et al. Digital business models for Industry 4.0 : how innovation and technology shape the future of companies. Cham : Springer, 2022. 377 p.

Additional

6. Горобинська М. В. Зміна бізнес-моделей в умовах цифрової трансформації / М. В. Горобинська // Конкурентоспроможність та інновації: проблеми науки та практики : матеріали міжнародної науково-практичної інтернет-конференції, 25 листопада 2022 р. : тези допов. - Харків: ФОП Лібуркіна, 2022. — С. 738-742. — Режим доступу : <http://repository.hneu.edu.ua/handle/123456789/28608>.

7. Проскурніна Н. В. Трансформація бізнес-моделей підприємств роздрібної торгівлі в умовах цифровізації / Н. В. Проскурніна. // Бізнес Інформ. - 2020. - №10. - С. 384-391. — Режим доступу : <http://repository.hneu.edu.ua/handle/123456789/24947>.

8. Shepeliuk M. I. Digital Transformation of Business Structures in Ukraine: The Barriers and Drivers / M. I. Shepeliuk // БізнесІнформ. — 2021. — № 8. — С. 48-53. — Режим доступу : <http://repository.hneu.edu.ua/handle/123456789/27722>.

9. Mazorenko O. V. How Covid-19 pandemic boosts the European and Ukrainian electronic commerce / O. V. Mazorenko // [Електронний ресурс] Економіка та суспільство — 2021. — № 25. — Режим доступу : <http://repository.hneu.edu.ua/handle/123456789/25950>.

10. Zolkover A. Benefits and Risks of Digital Business Transformation: The Example of Eastern Europe Countries / A. Zolkover, I. Petrunenko, O. Iastremska et al. // Journal of Eastern European and Central Asian Research (JEECAR). — 2022. — Vol. 9. — № 2. — P. 344-356. — Режим доступу : <http://repository.hneu.edu.ua/handle/123456789/27386>.

11. Prokofieva K., Gruzina I., Sobakar M. Management approaches to the implementation of digital technologies in enterprise business processes: conceptual foundations, risks, and prospects // International scientific journal "Internauka." Series: "Economic Sciences". — 2025. — № 6. — Режим доступу: <https://doi.org/10.25313/2520-2294-2025-6-11074>

Information resources

12. Економічна стратегія України 2030 // Український інститут майбутнього. – Режим доступу: <https://strategy.uifuture.org>.

13. Електронний каталог Національної бібліотеки України імені В. І. Вернадського. – Режим доступу: www.nbuv.gov.ua.

14. Електронний каталог Харківської державної наукової бібліотеки імені В. Г. Короленка. – Режим доступу: <http://korolenko.kharkov.com>.