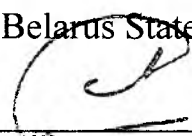


Educational institution  
"Belarus State Economic University"

**APPROVE**

Rector of the educational institution  
"Belarus State Economic University"

  
\_\_\_\_\_  
« 19 » 12 2024  
Registration № УД 6497-24/уч.

## **ECONOMICS OF DIGITALIZATION**

Curriculum of the educational institution  
in the academic discipline for the specialty  
6-05-0311-03 "World Economy"

The curriculum is based on the educational standard of general higher education OCBO 6-05-0311-03-2023 and the university curriculum in the specialty 6-05-0311-03 "World Economy"

**COMPILERS:**

A. L. Yanchuk, Chair of the Department of World Economy of the Educational Institution "Belarus State Economic University", Candidate of Economic Sciences, Associate Professor

**REVIEWERS:**

G. V. Turban, Chair of the Department of International Business of the Educational Institution "Belarus State Economic University", Candidate of Economic Sciences, Associate Professor

O. Y. Ostaltseva, Chair of the Department of Sports Management of the Educational Institution "Belarusian State University of Physical Culture", Candidate of Economic Sciences, Associate Professor

**RECOMMENDED FOR APPROVAL:**

Department of World Economy of the Educational Institution "Belarus State Economic University"

(protocol № 4 from 15. 11. 2024);

Methodological Commission for the Specialties "World Economy", "Business Administration" of the Educational Institution "Belarus State Economic University"

(protocol № 5 from 28. 11. 2024);

Scientific and Methodological Council of the Educational Institution "Belarus State Economic University"

(protocol № 2 from 18. 12. 2024 )

The curriculum is based on the educational standard of general higher education OCBO 6-05-0311-03-2023 and the university curriculum in the specialty 6-05-0311-03 "World Economy"

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(protocol № 2 from 18. 12. 2024)

## EXPLANATORY NOTE

The curriculum for the academic discipline "Economics of Digitalization" is aimed at promoting the study of the main theoretical provisions, principles, legal norms and levels of influence of digital technologies at the current stage of development of global economic relations.

**The purpose** of teaching the discipline is to form students' theoretical knowledge and practical skills in the field of analyzing the impact of digital technologies on international economic relations, including highlighting aspects of digital transformation in international and national economic policy.

Achieving this goal involves solving the following **tasks**:

- study of the interconnections and impact of digital technologies on economic systems, international trade, foreign investment and foreign economic policy;
- analysis of the features of international and national policies in the field of digitalization and their impact on the transformation of the economy;
- study of international experience in the implementation of the principles of the digital economy and the implementation of foreign economic policy affecting the digitalization of business operations;
- formation of practical skills in the development of foreign economic policy and the implementation of international economic operations, taking into account the conditions for carrying out activities in the digital economy.

As a result of studying the academic discipline "Economics of Digitalization", the following **competence** is formed

**specialized:**

To identify trends in changes in socio-economic processes in the digital economy, to use the advantages of information and communication technologies in world markets

As a result of studying an academic discipline, a master's student should

**to know:**

theoretical approaches to the formation of the digital economy;  
 methods and tools for regulating foreign economic activity, taking into account the digitalization of business operations;  
 features of the development of international relations in the digital economy;  
 methodology for assessing the effectiveness of foreign economic policy, taking into account changes in digital technologies;

**can:**

determine the relationship between changes in the digital economy and international economic relations;

assess the impact of digital changes on the regulation of foreign economic activity;

determine the optimal strategy for the use of digital communications in bilateral or multilateral economic negotiations;

to use the provisions and tools of international economic agreements in the context of digitalization of the world economy in practical work;

assess and argue proposals for the introduction of digital technologies from the standpoint of their impact on the development of international trade and financial flows;

***to have the skill:***

possession of the main categorical apparatus related to the impact of the digital economy on international economic relations;

assess the degree of development of the digital economy and digital technologies in selected countries and regions;

application of tools and methods for solving modern problems of the development of the world economy and foreign economic policy, taking into account the introduction of digital technologies.

Within the framework of the educational process in this academic discipline, the student must acquire not only theoretical and practical knowledge, skills and abilities in the specialty, but also develop his value, personal, spiritual potential, form the qualities of a patriot and a citizen who is ready for active participation in the economic, industrial, socio-cultural and social life of the country.

**Place of the academic discipline** in the system of training a specialist with higher education: the academic discipline belongs to the module "Intellectual Property and Digital Transformation" of the component of the educational institution.

**Connections with other academic disciplines** – the academic discipline "Economics of Digitalization" is logically related to the disciplines "International Entrepreneurship", "Macroeconomics", "World Economy".

Forms of education – full-time.

In accordance with the curriculum of the university, the study of the academic discipline is allotted:

for full-time higher education: the total number of study hours is 202 hours, classroom hours are 84 hours, of which lectures are 42 hours, seminars are 42 hours.

Distribution of classroom time by courses and semesters:

for full-time higher education: 3rd semester – lectures 24 hours, seminars – 24 hours; 4th semester – lectures – 18 hours, seminars – 18 hours. Independent work of the student – 118 hours.

Labor intensity – 6 c.u.

The form of intermediate certification is a test, an exam.

## CONTENT OF THE EDUCATIONAL MATERIAL

### **Topic 1. Introduction to the Digital Transformation of Global Economic Processes**

Basic concepts of the digital economy. Digitization, digitalization, digital transformation. Digital data as a source of value. Main characteristics and opportunities of the digital economy. Digital transformation of business operations. Basic digital tools and practices. Digital ecosystem. New digital technologies. Digitalization and productivity. Digitalization and entrepreneurship. Digital Economy in the Further Development of International Relations.

### **Topic 2. Infrastructure of the Commercial Segment of the Internet**

Basic concepts of the infrastructure of the commercial segment of the Internet. Emergence of the commercial segment of the Internet. Technical characteristics of the infrastructure. Structure of the commercial segment of the Internet. Pricing models for Internet access. Development of broadband Internet access and impact on the economy. Regulation of Internet infrastructure.

### **Topic 3. Software Platforms**

Economic features of multilateral and unilateral software platforms. The main differences between software platforms. Business models of multilateral software platforms. Pricing strategies on software platforms.

### **Topic 4. Digitalization of Retail Payments**

Structure of the payment market. Economies of scale and payment coverage. Economic surplus and cross-subsidization. Externalities of the adoption and use of digital payments. Pricing when making digital payments. Competition between traders, chains and issuers. Credit functionality of payment cards. Competition among payment instruments.

### **Topic 5. Online and Offline Competition**

Asymmetry of information in commercial transactions. The problem of the gap between the terms of purchase and consumption. Comparison of costs of consumers and distributors. Geography of markets in e-commerce. Comparative analysis of taxation. Formation of prices for products online. Implementation of online competition strategies. Consumer demand in online and offline distribution channels. Technological features of online and offline distribution channels.

### **Topic 6. Online Auctions in E-Commerce**

Basic aspects of the auction theory. Conduct during trades. Revaluation of bids in private auctions. Loss of the winner in auctions with a total value. Late and additional bidding. Formats of online auctions. Reserve prices in online auctions. Fake bidding. Buy It Now Offers. Bidding fees and auctions with full payment. Advertising auctions.

### **Topic 7. Social Media in Digital Business**

The concept of social networks, their main types: social interaction, file sharing, communication and communications, professional networks. Social media architecture. The problem of "free riders" and the creation of network value. Social learning. Identify network effects. Social media influence.

### **Topic 8. Open Source Software**

The concept of open source software (OSS). Participation in OSS projects. Comparative analysis of open and closed source software. Trade-offs between open and closed source. Pending contracts and transaction costs. Interaction between open and closed code. Net neutrality and exclusion on digital platforms.

### **Topic 9. Digital Piracy**

The concept of digital piracy. Protection of intellectual property and digital content. The impact of piracy on the profits and welfare of the end user. End-user piracy and market structure. Commercial digital piracy. Private and public measures against end-user piracy.

### **Topic 10. Security in the Digital Environment**

Economic barriers that impede information security. Main problem areas of digital security. Violations of the confidentiality of personal information. Malware. Security of payment systems.

### **Topic 11. Development of Digital Technologies in Sectors of the Economy**

Digital technologies in the agri-food business. International investments in the digitalization of industries. Monitoring and international indices of the development of the digital economy. The impact of digitalization on the development of foreign economic relations. Country experience in the development of digital technologies in entrepreneurial activity.

### **Topic 12. Digital Technologies in Foreign Trade**

E-business models. Value factors in e-business models. E-government and e-government services. Internet representation of the company. Ways of organizing online representation, their advantages and disadvantages. Platform technologies in the development of the digital economy. Digital platforms as tools for the development of international trade.

### **Topic 13. International Trade Policy and Digital Relations**

Legislative support, regulatory institutions and stimulation of the development of the main areas of the digital economy. Legal documents governing e-commerce. Offenses in the field of digital trade. The problem of protection of copyright and related rights. Improvement of antimonopoly legislation, legislation on the protection of consumer rights. Regulations of international and regional organizations on the use of digital technologies in international trade.

# EDUCATIONAL AND METHODOLOGICAL MAP OF THE ACADEMIC DISCIPLINE "ECONOMICS OF DIGITALIZATION"

Full-time higher education

Section number, topics	Title of the section, topics	Number of classroom hours							Literature	Forms of knowledge control
		lecture	practical classes	seminar classes	laboratory classes	Number of hours of controlled independent work				
						lecture	practical classes	seminar classes		
1	2	3	4	5	6	7	8	9	11	12
3 semester										
Topic 1	Introduction to the Digital Transformation of Global Economic Processes	4							[1-3, 8]	Express survey
	Introduction to the Digital Transformation of Global Economic Processes								[1-3, 8]	Test, essay, educational task
Topic 2	Infrastructure of the Commercial Segment of the Internet	4							[1-3, 7]	Express survey
	Infrastructure of the Commercial Segment of the Internet			4					[1-3, 7]	Test, essay, educational task
Topic 3	Software Platforms	4							[1-3, 6]	Express survey



	Software Platforms			4					[1-3, 6]	Test, essay, educational task
Topic 4	Digitalization of Retail Payments	2							[1-3, 7]	Express survey
	Digitalization of Retail Payments			2					[1-3, 7]	Test, essay, educational task
Topic 5	Online and Offline Competition	4							[1-3, 6]	Express survey
	Online and Offline Competition			4					[1-3, 6]	Test, essay, educational task
Topic 6	Online Auctions in E-Commerce	2							[1-3, 8]	Express survey
	Online Auctions in E-Commerce			2					[1-3, 8]	Test, essay, educational task
Topic 7	Social Media in Digital Business	2							[1-3, 7]	Express survey
	Social Media in Digital Business			2					[1-3, 7]	Test, essay, educational task
Topic 8	Open Source Software	2							[1-3, 7]	Express survey
	Open Source Software			2					[1-3, 7]	Test, essay, educational task
<b>Total 3 semester</b>		<b>24</b>		<b>24</b>						<b>Credit</b>
<b>4 semester</b>										
Topic 9	Digital Piracy	4							[1-3, 6]	Express survey
	Digital Piracy			4					[1-3, 6]	Test, essay, educational task

Topic 10	Security in the Digital Environment	4							[1-3, 4]	Express survey
	Security in the Digital Environment			4					[1-3, 4]	Test, essay, educational task
Topic 11	Development of Digital Technologies in Sectors of the Economy	4							[1-3, 4]	Express survey
	Development of Digital Technologies in Sectors of the Economy			4					[1-3, 4]	Test, essay, educational task
Topic 12	Digital Technologies in Foreign Trade	4							[1-3, 6, 8]	Express survey
	Digital Technologies in Foreign Trade			4					[1-3, 6, 8]	Test, essay, educational task
Topic 13	International Trade Policy and Digital Relations	2							[1-3, 5]	Express survey
	International Trade Policy and Digital Relations			2					[1-3, 5]	Test, essay, educational task
<b>Total 4 semester</b>		<b>18</b>		<b>18</b>						
<b>Total hours</b>		<b>42</b>		<b>42</b>						<b>Exam</b>

## INFORMATION AND METHODOLOGICAL PART

**Literature****Basic:**

1. Golovenchik, G. G. Digital Economy : a textbook for students of institutions of higher education in the specialties "World Economy", "Business Administration", "Economics of electronic business" / G. G. Golovenchik. – Minsk : Higher School, 2022. – 311 p. – (in Russian).

2. Zenkova, L. P. Transformation of the economic system in the conditions of the formation of the digital economy : [monograph] / L. P. Zenkova, O. V. Mashevskaya. – Minsk : IVC of the Ministry of Finance, 2024. – 237, [1] p. – (in Russian).

3. International Economics. International Economic Organizations: a textbook for students of higher education institutions in economic specialties / [A. A. Pranevich et al. ; ed. by A. A. Pranevich]. – Minsk : RIVS, 2022. – 343 p. – (in Russian).

**Additional:**

4. The economy in the post-Soviet space in the context of new pathological challenges and digitalization processes : a monograph / [V. V. Bogatyreva et al.] ; under the scientific editorship of K.V. Pavlov ; ANO OVO Centrosoyuz Ros. Federation of "Russian University of Cooperation", Izhevsk phil., UO Rep. Belarus "Polotsk State University". Izhevsk : Shelest, 2021. – 642, [1] p. – (in Russian).

5. Glossary: the Terms of the World Trade Organization / [author-comp.: G.V. Turban, I.S. Pelipenko] ; Ministry of Foreign Affairs Rep. Belarus. – Minsk : [B. I.], 2020. – 195 p.

6. Griбанov, Yu. I. Digital transformation of business : a textbook : for students of higher educational institutions studying in economic fields and specialties / Yu. I. Griбанov, M. N. Rudenko ; M-in Science and Higher Education. education grew. Federation, Perm State National University. research. Univ. - 3rd ed. – M. : Dashkov and K, 2023. – 212 p. – (in Russian).

7. Entrepreneurship development: concepts, digital technologies, an effective system : a monograph / [A.V. Sharkova et al.]; under the general editorship of M. A. Eskinarov ; FGOBUVO "Financial University under the Government of the Russian Federation. Federation" (Financial University). – 3rd ed. – M. : Dashkov and K, 2022. – 604 p. – (in Russian).

8. Kuprevich, T. S. Digital transformation of international business : [handbook for students studying in the specialties 1-26 02 01 "Business administration", 1-23 01 02 "Linguistic support of intercultural communications (in directions)"] / T. S. Kuprevich, G. V. Turban. – Minsk : Riga, 2022. – 99 p. – (in Russian).

## LIST OF QUESTIONS FOR THE EXAM

1. Basic concepts of the digital economy. Digitization, digitalization, digital transformation.
2. Digital data as a source of value. Main characteristics and opportunities of the digital economy.
3. Digital transformation of business operations. Basic digital tools and practices.
4. Digital ecosystem. New digital technologies.
5. Digitalization and productivity. Digitalization and entrepreneurship.
6. Digital Economy in the Further Development of International Relations.
7. Basic concepts of the infrastructure of the commercial segment of the Internet. Emergence of the commercial segment of the Internet.
8. Technical characteristics of the infrastructure. Structure of the commercial segment of the Internet.
9. Pricing models for Internet access.
10. Development of broadband Internet access and impact on the economy.
11. Regulation of Internet infrastructure.
12. Economic features of multilateral and unilateral software platforms. The main differences between software platforms.
13. Business models of multilateral software platforms.
14. Pricing strategies on software platforms.
15. Structure of the payment market.
16. Economies of scale and payment coverage. Economic surplus and cross-subsidization.
17. Externalities of the adoption and use of digital payments.
18. Pricing when making digital payments.
19. Competition between traders, chains and issuers. Credit functionality of payment cards.
20. Competition among payment instruments.
21. Asymmetry of information in commercial transactions. The problem of the gap between the terms of purchase and consumption.
22. Comparison of costs of consumers and distributors. Geography of markets in e-commerce.
23. Comparative analysis of taxation.
24. Formation of prices for products online.
25. Implementation of online competition strategies. Consumer demand in online and offline distribution channels.
26. Technological features of online and offline distribution channels.
27. Basic aspects of the auction theory.
28. Conduct during trades. Revaluation of bids in private auctions.
29. Loss of the winner in auctions with a total value. Late and additional bidding.
30. Formats of online auctions. Reserve prices in online auctions.

31. Fake bidding. Buy It Now Offers. Bidding fees and auctions with full payment.
32. Advertising auctions.
33. The concept of social networks, their main types: social interaction, file sharing, communication and communications, professional networks.
34. Social media architecture. The problem of "free riders" and the creation of network value. Social learning.
35. Identify network effects. Social media influence.
36. The concept of open source software (OSS). Participation in OSS projects.
37. Comparative analysis of open and closed source software. Trade-offs between open and closed source.
38. Pending contracts and transaction costs. Interaction between open and closed code.
39. Net neutrality and exclusion on digital platforms.
40. The concept of digital piracy. Protection of intellectual property and digital content.
41. The impact of piracy on the profits and welfare of the end user. End-user piracy and market structure.
42. Commercial digital piracy. Private and public measures against end-user piracy.
43. Economic barriers that impede information security. Main problem areas of digital security.
44. Violations of the confidentiality of personal information.
45. Malware. Security of payment systems.
46. Digital technologies in the agri-food business.
47. International investments in the digitalization of industries.
48. Monitoring and international indices of the development of the digital economy.
49. The impact of digitalization on the development of foreign economic relations.
50. Country experience in the development of digital technologies in entrepreneurial activity.
51. E-business models. Value factors in e-business models.
52. E-government and e-government services.
53. Internet representation of the company. Ways of organizing online representation, their advantages and disadvantages.
54. Platform technologies in the development of the digital economy. Digital platforms as tools for the development of international trade.
55. Legislative support, regulatory institutions and stimulation of the development of the main areas of the digital economy.
56. Legal documents governing e-commerce.
57. Offenses in the field of digital trade.
58. The problem of protection of copyright and related rights.

59. Improvement of antimonopoly legislation, legislation on the protection of consumer rights.

60. Regulations of international and regional organizations on the use of digital technologies in international trade.

## **LIST OF TOPICS FOR ESSAYS**

1. Global trends in the development of the digital economy.
2. The impact of digital technologies on commodity markets (to choose).
3. Problems of transition to a digital economy (country or region to choose).
4. Investments in digital assets in individual industries (country and industry to choose).
5. Export and import of goods using digital technologies (country and product group to choose).
6. Use of digital platforms to increase the competitiveness of small enterprises (to choose).
7. Methods of accepting international payments (to choose).
8. Digital security requirements in national legislation and their impact on foreign trade (to choose).
9. International trade negotiations taking into account the development of digital technologies: a regional dimension (to choose).
10. Trends in the development of the digital economy in countries and integration associations (to choose).

## **ORGANIZATION OF STUDENTS' INDEPENDENT WORK**

To obtain competencies in an academic discipline, an important stage is the independent work of students.

For independent work of a full-time student 118 hours are allocated.

The content of independent work of students includes all the topics of the academic discipline from the section "Content of the educational material".

When studying an academic discipline, the following forms of independent work are used:

- independent work in the form of solving individual problems in the classroom during practical classes under the supervision of a teacher in accordance with the schedule of training sessions;
- in-depth study of sections, topics, individual issues, concepts;
- preparation for seminars, including the preparation of reports, thematic reports, information and demonstration materials, essays, presentations, essays, etc.;
- work with educational, reference, analytical and other literature and materials;
- compilation of a review of scientific (scientific and technical) literature on a given topic;
- performing information retrieval and compiling a thematic selection of literary sources, Internet sources;
- analytical processing of the text (annotation, abstracting, reviewing, writing a resume);
- preparation for passing intermediate certification.



## **QUALITY CONTROL OF KNOWLEDGE ASSIMILATION**

Diagnostics of the quality of knowledge assimilation is carried out within the framework of current control and intermediate certification.

Current control activities are carried out during the semester and include the following forms of control:

- test;
- express survey in classroom classes;
- poll;
- abstract;
- educational task.

The current assessment in the academic discipline is held three times a semester and includes a test, essay and revision task.

The result of the current control for the semester is evaluated by a mark in points on a ten-point scale and is derived based on the marks given during the current control activities during the semester.

Requirements for a student when passing intermediate certification.

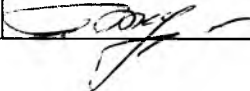
Students are admitted to intermediate certification in an academic discipline subject to the successful completion of the current certification (implementation of current control measures) in the academic discipline provided for in the current semester by this curriculum.

Intermediate certification is carried out in the form of a test and an exam.

## **METHODOLOGY FOR FORMING A GRADE IN AN ACADEMIC DISCIPLINE**

In accordance with the Regulation on the rating system for assessing the knowledge, skills and abilities of BSEU students.

**PROTOCOL OF COORDINATION OF THE CURRICULUM WITH OTHER  
ACADEMIC DISCIPLINES OF THE SPECIALTY**

The name of the educational discipline with which approval required	Name of Department	Proposals for changes in the content of the curriculum of a higher education institution in an academic discipline	Decision made by the department that developed the curriculum (indicating the date and number of the protocol)
International Economic Relations	Department of International Business		

# **ADDITIONS AND CHANGES TO THE CURRICULUM FOR THE ACADEMIC DISCIPLINE "ECONOMY OF DIGITALIZATION"**

(Registration № \_\_\_\_\_ from \_\_\_\_\_  
on \_\_\_\_/\_\_\_\_ academic year)

№	Additions and changes	Foundation

The curriculum was revised and approved at the meeting of the department

\_\_\_\_\_ (protocol № \_\_\_\_\_ from \_\_\_\_\_ 20\_\_ г.)  
(Name of the Department)

Chair of the Department

\_\_\_\_\_  
(academic degree, academic title)

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(Surname)

**APPROVE**

Dean of the Faculty

\_\_\_\_\_  
(academic degree, academic title)

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(Surname)