

SYLLABUS of the academic discipline "Digital Transformation of the World Economy"	
Level of higher education	Second (Master's) level of higher education
Code and title of the specialty, type and title of the educational program	For all higher education students of the Educational and Research Institute of Economics, Management, Law and Information Technologies
Year, semester	1st year, 2nd semester
Scope and form of semester assessment of the academic discipline	Number of ECTS credits: 4.0, Total number of hours: 120, including: <i>Full-time form of study:</i> Lectures – 16 hours, Seminars – 24 hours. <i>Part-time form of study:</i> Lectures – 6 hours, Seminars – 4 hours. Form of final assessment: Pass/fail exam
Language of instruction	English
Full name of the structural units (educational and research institute / faculty, department)	Educational and Research Institute of Economics, Management, Law and Information Technologies, Department of Economics and Public Administration
Contact details of the developer(s)	Lesiuk Vladyslav Stanislavovych, PhD in Economics, Assistant at the Department of Economics and Public Administration, e-mail: vladyslav.lesiuk@pdau.edu.ua, phone: +380970687139, https://www.pdau.edu.ua/people/lesiuk-vladyslav-stanislavovych
THE PLACE OF THE ACADEMIC DISCIPLINE IN THE EDUCATIONAL PROGRAM	
Status of the academic discipline	Faculty elective academic discipline
Prerequisites for studying the academic discipline	No prerequisites
Competencies	General: GC 1. Ability to communicate in a foreign language. GC 2. Ability to learn and acquire modern knowledge. GC 3. Ability to search for, process, and analyze information from various sources.
Learning outcomes	LO 1. To understand the trends, concepts, principles, and tools of digital transformation, the digital economy, artificial intelligence, big data, blockchain, and cloud technologies.
THE ROLE OF THE ACADEMIC DISCIPLINE IN THE FORMATION OF SOCIAL SKILLS	
The study of the academic discipline ensures the development of the following social skills: critical, analytical, and systemic thinking (ability to analyze the processes of the digital economy); teamwork (ability to develop effective interaction skills in a team); intercultural communication (ability to conduct	

discussions while considering international practices in approaches to digitalization); adaptability and flexibility (ability to respond to the challenges of digital transformation); responsibility (ability to make decisions with regard to social responsibility and the goals of sustainable development).

THE PURPOSE OF THE ACADEMIC DISCIPLINE

Formation of knowledge about the essence, factors, and consequences of digitalization in the modern world economy; to ensure understanding of the impact of digital technologies on the transformation of the global economy, international trade, financial markets, production, and the labor market; as well as to develop analytical thinking skills and the ability to apply modern digital tools.

PROGRAM OF THE ACADEMIC DISCIPLINE

Topic 1. The essence and features of the digital economy.

Topic 2. Global trends, opportunities, and challenges of digitalization.

Topic 3. Transformation of the labor market in the digital age.

Topic 4. Financial technologies and digital innovations in the world economy.

Topic 5. E-commerce and its impact on international trade.

Topic 6. Artificial intelligence and automation in global production.

Topic 7. Cybersecurity and digital sovereignty as a guarantee of economic stability.

Topic 8. Policies and strategies for the development of the digital transformation of the world economy.

TEACHING AND LEARNING METHODS

1. Methods of organizing and implementing educational and cognitive activity:

- verbal methods: lecture, explanatory narration, conversation;
- visual methods: illustrating, demonstrating;
- practical methods: exercises, practical work;
- work with educational and methodological literature: note-taking, outlining, annotating, preparing essays / reports.

2. Methods of stimulating and motivating educational and cognitive activity:

- methods of forming cognitive interests: creating situations of interest and novelty in the learning material, using personal life experience, educational discussions to solve problem situations.

3. Innovative and interactive teaching methods:

- interactive methods: discussions, debates, designing professional situations, case method, brainstorming;
- computer and multimedia methods: using multimedia presentations, distance learning.

4. Methods of control and self-control of the effectiveness of educational and cognitive activity:

- oral control methods: questioning, conversation, report;
- written control methods: written performance of practical tasks, independent work, creative task, test solving.

ASSESSMENT OF LEARNING OUTCOMES

Grading scheme, scale, and assessment criteria for learning outcomes

Provided in the Appendix to the syllabus

POLICY OF THE ACADEMIC DISCIPLINE

- deadlines and re-taking policy	The higher education student is obliged to meet the deadlines (the date for classroom assignments or the time set in the LMS Moodle distance learning system) by which a given task must be completed. Submission of assignments after the deadline without a valid reason is graded 25% lower. Re-taking of current and final assessments is allowed only for valid reasons and with the permission of the Directorate
- academic integrity policy	The higher education student must comply with the Code of Academic Integrity of Poltava State Agrarian University. Compliance with academic integrity by students includes: independent completion of learning tasks, as well as current and final assessments of learning outcomes (for persons with special educational needs, this requirement is applied with regard to their individual needs and capabilities); providing references to sources of information when using ideas, developments, statements, or data; compliance with copyright and related rights legislation; providing reliable information about the results of one's own educational (scientific, creative) activities, the research methods used, and the sources of information. Documents related to academic integrity are available in the "Academic Integrity" section on the website of Poltava State Agrarian University: https://www.pdau.edu.ua/content/akademichna-dobrochesnist
- class attendance policy	Attendance of all types of classes by higher education students is mandatory
- recognition of non-formal / informal learning outcomes	Higher education students are entitled to the recognition of learning outcomes acquired in non-formal and informal education prior to or during the study of this educational component. The acquisition of such learning outcomes is possible after the successful completion of courses (with documentary confirmation) on various educational platforms, including Prometheus, Coursera, Edera, etc. The specifics of non-formal and informal learning are regulated by the Regulation on the Procedure for Recognition of Learning Outcomes Acquired in Non-Formal and Informal Education by Higher Education Students of Poltava State Agrarian University: https://www.pdau.edu.ua/sites/default/files/node/5555/polozhennyaproneformalnuosvitu2025.pdf

- appeal of assessment results	After the announcement of the results of current or semester assessment, a higher education student has the right to request clarification of the received grade from the lecturer. Grounds for appealing an assessment result may include: non-compliance by the lecturer with the grading system specified in the academic discipline syllabus, biased evaluation, and / or the existence of a conflict of interest, if the student was not and could not have been aware of it before the assessment. The assessment result may be appealed no later than the next working day after its announcement. To appeal an assessment result, the higher education student must submit a written application to the Director of the Institute. The procedure for appealing assessment results of higher education students is regulated by the Regulation on the Assessment of Learning Outcomes of Higher Education Students at Poltava State Agrarian University: https://www.pdau.edu.ua/sites/default/files/node/5555/polozhennyaproocinyuvannyazdobuvachiv2025.pdf
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RECOMMENDED SOURCES OF INFORMATION

Basic sources

1. Baley I., Veldkamp L. L. The data economy: Tools and applications. Princeton University Press, 2025. 320 p.
2. Fabozzi F. J., Imerman M. The economics of FinTech: Understanding digital transformation in financial services. Cambridge : MIT Press, 2025. 480 p.
3. Мельник С. І., Штангрет І. А. Економічна безпека підприємства в умовах цифрової трансформації економіки: теоретичні та практичні аспекти : монографія. Львів : Растр-7, 2025. 256 с.
4. Staab P. Markets and power in digital capitalism. Manchester : Manchester University Press, 2024. 184 p.
5. Сучасні тренди світової економіки та міжнародних фінансів : монографія / Ю. Біленко та ін. ; за ред. Ю. Біленка. Львів : Львівський національний університет імені Івана Франка, 2024. 298 с.
6. Цифрова економіка : підручник / за ред. А. І. Крисоватого, О. М. Десятнюк, О. В. Птащенко. Тернопіль : Західноукраїнський національний університет, 2024. 520 с.
7. Основи цифрової економіки : навч. посіб. / за ред. Н. А. Мазур. Чернівці : Чернівецький національний університет імені Юрія Федьковича, 2024. 304 с.
8. The digital economy / ed. White H. New York : Willford Press, 2023. 254 p.
9. Котелевець Д. О. Інфраструктура цифрової економіки: теоретико-методологічні та прикладні аспекти державного регулювання : монографія. Чернігів : Науково-освітній інноваційний центр суспільних трансформацій, 2023. 202 с.
10. Основи цифрової економіки : навч. посіб. / за ред. А. І. Крисоватого та ін. Тернопіль : Західноукраїнський національний університет, 2021. 274 с.

Supplementary sources

1. Digital economy and green growth: Opportunities and challenges for urban and regional ecosystems / eds. M. Mavri, P. Ikouta Mazza, A. Karasavvoglou, P. Polychronidou. Cham : Springer, 2024. 188 p. <https://doi.org/10.1007/978-3-031-66669-8>
2. Гетманенко О. О., Фізеші Й. Й. Цифрова трансформація міжнародної торгівлі у вимірах цифрового розриву. *Науковий вісник Ужгородського національного університету. Серія: Міжнародні економічні відносини та світове господарство*. 2024. Вип. 52. С. 44–49. <https://doi.org/10.32782/2413-9971/2024-52-6>
3. Краус К. М., Краус Н. М., Кирилюк Є. М. Підприємництво. Індустрія. Економіка: імперативи інституціональних змін та феноменологія цифрової трансформації : монографія. Полтава : Астроя, 2024. 319 с.
4. International economics and business: Nations and firms in the global economy / S. Beugelsdijk et al. 3rd ed. Cambridge : Cambridge University Press, 2023. 306 p.
5. Данкулинець В. В., Романюк С. В., Козар Ю. В., Росул Ю. Ю. Світова економіка в умовах впровадження цифрових технологій (теоретичний аспект). *Міжнародний науковий журнал "Освіта і наука"*. 2023. Вип. 2 (35). С. 302–308.
6. Сидоров О. А., Фісуненко Н. О., Альошина Т. В. Світова економіка та міжнародні економічні відносини : підручник / за заг. ред. П. А. Фісуненка. Дніпро : Арт-Прес, 2023. 398 с.
7. Калініченко О., Лесюк В. Забезпечення фінансової безпеки України під впливом інтеграційних процесів. *Давид і Голіаф: проблеми безпеки та сталого розвитку України в умовах війни* : колективна монографія. Львів, 2022. С. 222–252. <http://dx.doi.org/10.5281/zenodo.6811032>
8. Kalinichenko O., Lesyuk V. Assessment of the financial security level of Ukraine. *Science and Innovation*. 2021. Vol. 17. No. 6. P. 3–12. <https://doi.org/10.15407/scine17.06.003>
9. Øverby H., Audestad J. A. Introduction to digital economics: Foundations, business models and case studies. 2nd ed. Cham : Springer, 2021. 353 p. <https://doi.org/10.1007/978-3-030-78237-5>
10. Śledziewska K., Włoch R. The foundations of the digital economy. *The Economics of Digital Transformation*. Routledge, 2021. P. 1–44. <https://doi.org/10.4324/9781003144359-1>

Information sources

1. AI Index. Stanford University. URL: <https://hai.stanford.edu/ai-index> (дата звернення: 01.08.2025).
2. Deloitte Insights. URL: <https://www.deloitte.com/us/en/insights.html> (дата звернення: 01.08.2025).
3. Digital. World Bank Group. URL: <https://www.worldbank.org/en/topic/digital> (дата звернення: 01.08.2025).
4. Digital Economy Report. UN Trade and Development. URL: <https://unctad.org/publications-search?f%5B0%5D=product%3A598> (дата звернення: 01.08.2025).
5. Eurostat. URL: <https://ec.europa.eu/eurostat> (дата звернення: 01.08.2025).
6. McKinsey Global Institute. URL: <https://www.mckinsey.com/mgi> (дата звернення: 01.08.2025).
7. Our World in Data. URL: <https://ourworldindata.org> (дата звернення: 01.08.2025).
8. Shaping Europe's digital future. European Commission. URL: https://commission.europa.eu/index_en (дата звернення: 01.08.2025).
9. Statista. URL: <https://www.statista.com> (дата звернення: 01.08.2025).
10. World Economic Forum. URL: <https://www.weforum.org> (дата звернення: 01.08.2025).

Approval details

Approved at the meeting of the Department of Economics and Public Administration, minutes dated 1 September 2025, No. 1

SCHEME OF GRADING, SCALE AND CRITERIA FOR THE ASSESSMENT OF LEARNING OUTCOMES

Grading scheme for the academic discipline

Full-time form of study

Title of the topic	Forms of assessment of learning outcomes of higher education students					Total
	Discussion	Test	Practical exercise	Report / Presentation	Self-study assignment	
Topic 1. The essence and features of the digital economy	2	3	3	–	2	10
Topic 2. Global trends, opportunities, and challenges of digitalization	2	3	3	5	2	15
Topic 3. Transformation of the labor market in the digital age	2	3	3	–	2	10
Topic 4. Financial technologies and digital innovations in the world economy	2	3	3	5	2	15
Topic 5. E-commerce and its impact on international trade	2	3	3	–	2	10
Topic 6. Artificial intelligence and automation in global production	2	3	3	5	2	15
Topic 7. Cybersecurity and digital sovereignty as a guarantee of economic stability	2	3	3	–	2	10
Topic 8. Policies and strategies for the development of the digital transformation of the world economy	2	3	3	5	2	15
Total	16	24	24	20	16	100

Part-time form of study

Title of the topic	Forms of assessment of learning outcomes of higher education students					Total
	Test	Practical exercise	Report / Presentation	Self-study assignment	Control work	
Topic 1. The essence and features of the digital economy	3	–	–	2	–	5
Topic 2. Global trends, opportunities, and challenges of digitalization	3	3	5	2	–	13
Topic 3. Transformation of the labor market in the digital age	3	–	–	2	–	5
Topic 4. Financial technologies and digital innovations in the world economy	3	–	–	2	–	5
Topic 5. E-commerce and its impact on international trade	3	–	–	2	–	5
Topic 6. Artificial intelligence and automation in global production	3	–	–	2	–	5
Topic 7. Cybersecurity and digital sovereignty as a guarantee of economic stability	3	–	–	2	–	5
Topic 8. Policies and strategies for the development of the digital transformation of the world economy	3	3	5	2	–	13
Control work	–	–	–	–	44	44
Total	24	6	10	16	44	100

Forms, scale, and assessment criteria of learning outcomes in ongoing academic performance monitoring of higher education students:

Assessment scale and criteria for discussion

Points	Assessment criteria
0	No answer or the answer is irrelevant to the question. No evidence of understanding the content
1	The answer is partially correct but superficial. Contains significant inaccuracies. Demonstrates only a general idea of the topic without sufficient justification
2	A complete, correct, and logically consistent answer. Uses key terms and concepts. Demonstrates understanding of theoretical principles and the ability to explain them

Assessment scale and criteria for test performance

Points	Assessment criteria
0	The student answers correctly less than 30% of the tests
1	The student answers correctly 31–60% of the tests
2	The student answers correctly 61–90% of the tests
3	The student answers correctly 91–100% of the tests

Assessment scale and criteria for practical exercise

Points	Assessment criteria
0	The task is not completed or completed incorrectly. The student did not demonstrate the skills or abilities required by the exercise
1	The task is partially completed. Contains significant errors and requires the lecturer's assistance. Demonstrates poor understanding of the exercise methodology
2	The task is completed correctly but with some inaccuracies or mistakes. Requires minor clarifications or additions from the lecturer. The response demonstrates an adequate level of knowledge and skills
3	The task is fully, correctly, and timely completed. The student demonstrates independence, logical reasoning, and proper application of knowledge in practice. The performance shows a high level of knowledge

Assessment scale and criteria for report or presentation

Points	Assessment criteria
0	The report or presentation is missing or completely irrelevant to the topic. The student did not demonstrate knowledge and did not complete the task
1	The prepared material is presented fragmentarily, without logic or structure. Contains significant content errors. No visuals or presentation design
2	The content is incomplete, with substantial inaccuracies and weak argumentation. The presentation design is primitive or partially missing

3	The topic is mostly covered but with some shortcomings. Information is presented sequentially but not always in depth. Minimal visual aids are used
4	The report or presentation is complete, meaningful, and structured. Examples are provided, argumentation is sufficient. The design is adequate, though with minor inaccuracies
5	The topic is covered deeply, systematically, and logically. Strong argumentation supported by academic apparatus. The presentation / report is professionally designed with effective visuals. The performance demonstrates a high level of preparation and independence

Assessment scale and criteria for self-study assignment

Points	Assessment criteria
0	The task is not completed or completed with major errors
1	The task is partially completed, with some shortcomings. The response contains inaccuracies or lacks depth. The work demonstrates only a basic level of understanding
2	The task is fully and correctly completed. Demonstrates independence and logical reasoning. The work reflects an adequate level of knowledge and skills

Assessment scale and criteria for control work for the part-time form of study

Points	Assessment criteria
0–11	The work does not meet the requirements. The responses are fragmentary and superficial, containing major errors. There is no logical reasoning or analysis
12–19	The main issues are only partially addressed. There are inaccuracies and insufficient argumentation. The formatting only partially meets the requirements
20–27	The work is presented logically and consistently, but not in full. There are minor shortcomings in phrasing. The student demonstrates an understanding of the key concepts, although the depth of analysis is moderate
28–35	The work demonstrates an adequate level of analytical thinking. The conclusions are logical. There are minor formatting errors
36–44	The work is fully completed and independent. The material is presented with personal reasoning and well-founded conclusions. The formatting is correct

The form of final knowledge assessment of higher education students, according to the curriculum and syllabus, is a pass/fail exam.