



ECONOMY OF IT-INDUSTRY AND BUSINESS

Syllabus

Реквізити навчальної дисципліни

Level of higher education	First (bachelor's)
Field of Study	12 Information technologies
Specialty	121 Software Engineering
Education Program	Computer Systems Software Engineering
Type of Course	<i>Normative</i>
Mode of Studies	<i>Full-time</i>
Year of studies, semester	<i>4th year, autumn semester</i>
ECTS workload	<i>4 credits/120 hours (lectures: 36 hours , pract.: 36 hours , self-study: 48 hours)</i>
Testing and assessment	<i>Final test, Modular control work</i>
Course Schedule	<i>According to the schedule: http://roz.kpi.ua/</i>
Language of Instruction	<i>English</i>
Course Instructors	<i>Lectures, practices: Olena Oleksiivna Trofymenko professor of the Department of Economic Cybernetics, doctor of economic sciences, professor, contact details : office (website): https://ecocyber.fmm.kpi.ua/uk/trofymenko-olena-oleksiivna/ e- mail : Trofymenko.olena@ill.kpi.ua Telegram : 0 503347957</i>
Access to the course	https://ela.kpi.ua/handle/123456789/27463 , https://ela.kpi.ua/handle/123456789/46962

Outline of the Course

1. Description of the educational discipline, its purpose, subject of study and learning outcomes

The discipline "Economics of the IT industry and entrepreneurship" provides the future specialist with the opportunity to study general and special approaches to the organization of efficient production and commercial activities of enterprises in the field of the IT industry , tools of economic justification for making highly effective management decisions in the conditions of rapid development of information technologies and digitalization of the economy.

The subject of the discipline "Economics of the IT industry and entrepreneurship" is the economic relations of economic entities in the conditions of the modern market of the IT industry, which are based on the fundamental principles of economic theories, social production, the development of economic systems, the mechanism of macroeconomic regulation, the regularities of the functioning of the economy of enterprises, technology and organization of production, industrial logistics, economy and scientific organization of work, planning and forecasting of economic activity.

The purpose of the discipline is to form the economic component of professional training of future specialists in students, which integrates their ability to analyze the factors of social production and generalize the features of economic systems; justify the results of the economic activity of enterprises in the conditions of digitalization ; analyze macro and microeconomic problems of the IT industry economy ; to study the processes of effective organization and planning of entrepreneurship.

Competences.

The purpose of the discipline is the formation of students' general and professional competences :

GC02 - Ability to apply knowledge in practical situations;

GC05 – Ability to learn and master modern knowledge;

GC06 - Ability to search, process and analyze information from various sources;

GC07 - Ability to work in a team;

PC09 - Ability to evaluate and take into account economic, social, technological and environmental factors affecting the field of professional activity.

Program learning outcomes.

PLO24 - Be able to calculate the economic efficiency of software systems.

2. Prerequisites and postrequisites of the discipline

Prerequisites : Educational components such as "Group dynamics and communications", "Risk management and project quality", "Probability theory", "Mathematical analysis", "Human rights and freedoms", "Philosophical foundations of scientific knowledge" are prerequisites for studying the discipline.

Post-requisites : The discipline provides such educational components as: "Pre-diploma practice", "Diploma design"

3. Content of the academic discipline

List of topics of the academic discipline:

SECTION I. Economic bases of production and commercial activity of enterprises of the IT industry.

Topic 1. The enterprise as a business entity in the conditions of digitalization of the economy. The economic mechanism of the enterprise of the IT industry.

SECTION II. Resource support of the IT industry enterprise.

Topic 2. Fixed and current assets of the enterprise.

Topic 3. Personnel and labor productivity. Organization of remuneration at the enterprise.

CHAPTER III. Economic results and efficiency of production and commercial activity.

Topic 4. The cost of products (works, services) of the enterprise and approaches to evaluating the economic indicators of software products.

Topic 5. Pricing and monetary calculations.

Topic 6. Financial and economic results of the enterprise.

Topic 7. Quality and competitiveness of the company's products.

CHAPTER IV. Basics of organization and planning of industrial and commercial activities.

Topic 8. Organization of the main production and computer - integrated production.

Topic 9. Technological and organizational preparation of production.

Topic 10. Organization of auxiliary production, maintenance and repair of equipment.

Topic 11. Forecasting and planning of the enterprise.

4. Educational materials and resources

Basic literature

1. Savchenko S.M., Kuharuk A.D., Tymoshenko N.Yu. Economics and organization of production: a workshop for students of technical specialties Kyiv: Igor Sikorskyi KPI, 2022, 93 p. URL: <https://ela.kpi.ua/handle/123456789/46962>.
2. Petrenko K. V., Skorobogatova N. E. - Economics and organization of production: a study guide for bachelor's degree holders in technical and engineering specialties. Kyiv: KPI named after Igor Sikorskyi, 2019. 177 p. URL: <https://ela.kpi.ua/handle/123456789/27463>
3. Ilyash O.I. Labor economics and social-labor relations: Workshop. Kyiv: KPI named after Igor Sikorskyi, 2020. - 150 p. URL: <https://ela.kpi.ua/handle/123456789/43511>
4. Shevchuk, O. A. Economics and production organization. Recommendations for the implementation of the economic part of diploma theses [Electronic resource]: study guide for bachelor's degree holders in educational programs: "Intelligent service-oriented distributed computing" "Computer technologies in biology and medicine" "Systems and methods of artificial intelligence" specialty 122 Computer computer science "System analysis and management" specialty 124 System analysis / O. A. Shevchuk, N. V. Roshchyna, M. M. Duchenko ; KPI named after Igor Sikorsky. – Electronic text data (1 file: 611 Kbytes). – Kyiv: Igor Sikorskyi KPI, 2022. – 47 p. – Title from the screen.– URL: <https://ela.kpi.ua/handle/123456789/47501>.

Additional literature

5. Andrus O.I., Pokrovska N.M. Economics and organization of production: study guide for practical classes Kyiv: Igor Sikorskyi KPI, 2022, 127 p.
6. Smentina N.V. Economics and organization of entrepreneurial activity: textbook Kyiv: FOP Gulyaeva V.M., 2019, 320 p.
7. Kryvda O.V., Boychuk N.Ya., Rudenko O.I. Economics and organization of production: textbook Kyiv: Igor Sikorskyi KPI, 2020, 99 p.
8. Apopii V. V. Basics of entrepreneurship: teaching . guide Kyiv: Lira-K, 2017, 324 p.
9. Prokhorova V. V., Davydova O. Yu.. Organization of production. Kharkiv: I.S. Ivanchenko Publishing House, 2018. 275 p.

Information resources

10. Ministry of Economy of Ukraine: official: website . URL: <http://www.me.gov.ua/>
11. of Digital Transformation of Ukraine : official : website . URL: <https://thedigital.gov.ua/>
12. State Statistics Service of Ukraine: official: website . URL: www.ukrstat.gov.ua
13. Prozorro : website . URL: <https://prozorro.gov.ua/>
14. Agency for the Development of the Infrastructure of the Stock Market of Ukraine (ARIFRU): website URL: <https://www.smida.gov.ua/about>
15. National Institute of Strategic Studies. Official website : URL: <http://www.niss.gov.ua>
16. Regulatory acts of Ukraine. Official website : URL: www.nau.kiev.ua
17. Server of the Verkhovna Rada of Ukraine. Official website : URL: <http://www.rada.gov.ua>
18. National Bank of Ukraine. Official website : URL: <https://bank.gov.ua/>
19. Ministry of Finance of Ukraine. Official website: URL: <https://www.mof.gov.ua/uk>
20. World Data Center for Geoinformatics and Sustainable Development. Official website : <http://wdc.org.ua/>

Educational content

5. Methodology

The following teaching methods are used to master the discipline:

methods of organization and implementation of educational and cognitive activities : lectures ; practical training; consultations; independent work; work with educational and methodical literature and information resources.

methods of controlling the effectiveness of educational and cognitive activities: modular control work; poll; testing; solving problems, performing educational tasks.

general teaching methods: method of problem presentation, method of problem-searching presentation, explanatory method of teaching, reproductive method of teaching, interactive method, heuristic method, information-receptive method, reproduction method during the execution of modular control work.

special teaching methods : case method, individual work with students, problem solving, method of analyzing specific situations , team work.

methods of creating interest and motivating educational and cognitive activities: presentation of results, methods of solving creative tasks, moderation ; method of situational analysis.

Mastering the educational component involves appropriate teaching and assessment methods that will ensure the achievement of program learning outcomes.

The curriculum provides for 36 hours of lectures and 36 hours of practical classes, modular control work.

Calendar-thematic plan and structural-logical construction of course study

Study week	Distribution of hours		Title of sections, topics, description of classes
	L	P	
1 - 2	4	4	<p>Topic 1. The enterprise as a business entity in the conditions of digitalization of the economy . The economic mechanism of the enterprise of the IT industry .</p> <p>Л1; Л2:Types of economic activity and the main directions of their development. An enterprise in the field of IT industry and the purpose of its activity. Classification of enterprises. International classification of enterprises. Legal basis of enterprise functioning and legislative provision of IT industry. Forms of association of enterprises in Ukraine. Production program, indicators of the enterprise's output volume assessment. Characteristics of intangible resources of the enterprise. Economics of intellectual property.</p> <p>Р1; Р2: Introduction. The main requirements in the course of studying the discipline, the system of evaluating the success of students, carrying out calendar and semester control. Concept of enterprise and enterprise economy. Internal and external environment of the enterprise. The economic mechanism of enterprise activity in the field of the IT industry. General methodical principles of determining production capacity and indicators of its use.</p>
3 - 4	4	4	<p>Topic 2. Fixed and current assets of the enterprise .</p> <p>Л1; Л2:Economic essence, classification and structure of fixed assets. Types of wear and methods of calculating depreciation of fixed assets. Indicators of assessment of the state and effectiveness of the use of fixed assets. Enterprise capacity and methods of its measurement. The nature, composition and classification of current assets. Rationing indicators of current assets. Cases of enterprises of the IT industry.</p> <p>Р1; Р2: Economic essence, classification and structure of fixed assets. Types of wear and methods of calculating depreciation of fixed assets . Efficiency of use of fixed assets. Methodological bases of normalization of individual elements of working capital. Efficiency of use of working capital. The main indicators and directions for improving the efficiency of the use of working capital of economic entities.</p>

5-6	4	4	<p>Topic 3. Personnel and labor productivity. Organization of remuneration at the enterprise.</p> <p>L1; L2: HR policy and HR management system. The personnel of the enterprise, its composition and professional qualification structure. Product labor intensity. Principles of stimulating productive work. Content and functions of wages. Market forms and payment systems . KPI of employees in the IT industry.</p> <p>P1; P2: Content and functions of wages. Forms of payment. Payroll systems. Tariff system of remuneration of workers and management personnel. Labor productivity, the procedure for its assessment and means of promotion. The company's remuneration fund . Material incentives for personnel. The system of motivation for enterprises in the IT industry.</p>
7 - 8	4	3	<p>Topic 4. The cost of products (works, services) of the enterprise and approaches to evaluating the economic indicators of software products.</p> <p>L1; L2: Essence, meaning and classification of costs. Expenses by types of economic activity. Grouping of costs by economic elements. Cost of production, structure and methods of its determination. The concept of the break-even point. Cost estimate for production, works, services of the enterprise. Cost management of the company's products in the market economy and digitalization .</p> <p>P1; P2: Approaches to the evaluation of economic indicators of software products . Calculation of costs for products (works, services) of the enterprise. Optimization of costs at the enterprise.</p>
8		1	Modular control work, part 1 (MCW). Includes theoretical, test and analytical tasks.
9	2	2	<p>Topic 5. Pricing and monetary calculations.</p> <p>L1. Basics of forming the price of the company's products. Economic content and price functions. Impact of product quality and demand on pricing. Price classification. Pricing strategies in market conditions. Types and structure of prices for industrial and scientific and technical products. Prices and tariffs for energy carriers, their features. State regulation of prices.</p> <p>P1. Price: definition, functions, formation process, strategies. Methods of price determination. Parametric pricing methods. Cash calculations.</p>
10	4	4	<p>Topic 6 . Financial and economic results of the enterprise.</p> <p>L1; L2: The essence and main tasks of the enterprise's financial activity. Indicators of assessment of the financial condition of the enterprise. Features of enterprise profit formation, factors of its growth. Types of enterprise profit. Sources of formation and distribution of profit at enterprises of various forms of ownership. Indicators and factors of increasing production efficiency.</p> <p>P1; P2: Methodical approaches to assessing the financial condition of the enterprise and the results of its activity. Modern methods of conducting economic analysis at the enterprise.</p>
11	2	4	<p>Topic 7 . The quality and competitiveness of the company's products.</p> <p>L1. Concept of product quality and competitiveness. Technical level and quality of products. Stages of evaluating the competitiveness of products. Product quality as a factor of enterprise competitiveness. Factors</p>

			<p>influencing the competitiveness of products . Ways of increasing the competitiveness of products.</p> <p>P1. Methods of product quality assessment. Algorithm for assessing the competitiveness of the enterprise.</p>
12-13	4	4	<p>Topic 8. Organization of the main production and computer-integrated production.</p> <p>L 1 ; L2: Principles of organization of production processes and their classification. Conceptual foundations of the fourth industrial revolution Industry 4.0. Types of production and their technical and economic characteristics. Production organization methods. Production structure of the enterprise. Production cycle. Rationing of raw materials, auxiliary materials and energy sources for production.</p> <p>P 1; P2: Evaluation of the costs of the main production at the enterprise and ways of their optimization. Modern methods of evaluating the efficiency of production processes. Computer-integrated production.</p>
14-15	4	3	<p>Topic 9. Technological and organizational preparation of production.</p> <p>L1; L2: Tasks and content of the stages of technological preparation of production. Technological documentation of the enterprise. The essence and significance of technological unification and standardization. Technical and economic analysis of technological processes. Content and stages of organizational preparation for production of new products.</p> <p>P1; P2: Organization of design of technological processes and means of technological equipment. Preparation of the transition of production to the production of new types of products.</p>
15		1	Modular control work, part 2 (MCW). Provides theoretical, test tasks, tasks.
16	2	2	<p>Topic 10. Organization of auxiliary production, maintenance and repair of equipment.</p> <p>L1 . Organization of providing production with technological equipment. Organization of the enterprise's transport economy. Maintenance and repair of equipment: essence, place in the production structure of the enterprise and organizational forms.</p> <p>P1: Organization of providing production with technological equipment. Management of production stocks of auxiliary production.</p>
17-18	4	4	<p>Topic 11. Forecasting and planning of the enterprise.</p> <p>L1; L2: The essence and organization of strategic planning of the enterprise in market conditions. Forecasting, its essence, meaning, types and methods of forecasting. System of planning indicators. Business plan of the enterprise.</p> <p>P1; P2: The main types of enterprise plans. Planning of strategic changes in the company's activities. Basic calculations of the efficiency of implementation of strategic changes in the company's activities .</p>
In total	36	36	

6. Self-study

The curriculum provides for 48 hours of self-study work. The following are assigned to self-study work:

Study week	Amount of hours	Task
1	2	3

Preparation for classroom classes: processing and comprehension of information from lecture classes, preparation for practical classes.

1-2	4	<i>Tema 1.Preparation for the survey and preparation of a report with a presentation in the classroom session on the topic (of the student's choice): Market regulators of the enterprise's activity. Digital economy: challenges and opportunities. Associated enterprises and the specifics of their functioning. Legal protection of objects of intellectual property rights in Ukraine. Modern problems of estimating the value of the company's intangible assets.</i>
3-4	4	<i>Tema 2.Preparation for the survey and preparation of a report with a presentation in the classroom on the topic (of the student's choice): Reserves for increasing the efficiency of the use of the company's fixed assets. Ways to improve the efficiency of the use of fixed assets of the enterprise. Problems and ways of improving the efficiency of the use of working capital at enterprises of Ukraine. The level of providing enterprises with the necessary working capital under modern business conditions. Ways to improve the efficiency of working capital at enterprises of various branches of the national economy of Ukraine. Preparation for solving problems and performing test tasks.</i>
5-6	4	<i>Тема 3.Preparation for the survey and preparation of a report with a presentation in the classroom on the topic (of the student's choice): Peculiarities of the formation of the personnel structure of enterprises of various types, sizes and forms of ownership. Motivation of work at enterprises (organizations) in the conditions of a market economy. Selection of forms and systems of payment of labor at enterprises of various forms of ownership. Increasing the efficiency of the organization of labor remuneration at the enterprise. The objective necessity of using various forms and systems of remuneration for the company's personnel . Preparation for solving problems and performing test tasks.</i>
7-8	4	<i>Topic 4. Preparation for the survey and preparation of a report with a presentation at a classroom session on the topic (of the student's choice): Ways of managing the cost of the company's products in the conditions of a market economy. Improvement of the composition of costing items based on the calculation of the cost of production. Justification of the choice of software product evaluation methods. Preparation for solving problems and performing test tasks.</i>
9-10	2	<i>Tema 5.Preparation for the survey and preparation of a report with a presentation in the classroom on a topic of the student's choice): Pricing strategies in market conditions. Types and structure of prices for industrial and scientific and technical products. Prices and tariffs for energy carriers, their features. Preparation for solving problems and performing test tasks.</i>
11-12	2	<i>Topic 6. Preparation for the survey and preparation of a report with a presentation at a classroom session on the topic (of the student's choice): Modern approaches to increasing the efficiency of the production and commercial activities of an IT - industry enterprise. Problems of evaluating the financial and economic results of the enterprise. Economic content of enterprise profitability. The main ways to increase the profitability of the enterprise. Preparation for solving problems and performing test tasks.</i>
13	2	<i>Tema 7.Preparation for the survey and preparation of a report with a presentation in</i>

		<i>the classroom on the topic (of the student's choice): The influence of product quality and demand on pricing. Classification of factors of product quality improvement. Determination of the economic effect of improving the quality of products (on a specific example). Standardization and certification of products at domestic enterprises. Experience in the implementation and certification of quality systems in Ukraine according to international standards. Preparation for solving problems and performing test tasks.</i>
14-15	2	<i>Tema 8. Preparation for the survey and preparation of a report with a presentation in the classroom on the topic (of the student's choice): Improvement of the management system for the duration of the production cycle of manufacturing products at Ukrainian enterprises. Designing the production structure of the enterprise and workshop. Production program of the enterprise. Peculiarities of calculating indicators of the efficiency of the production process. Preparation for solving problems and performing test tasks.</i>
15		<i>Tema 9. Preparation for the survey and preparation of a report with a presentation at a classroom session on the topic (of the student's choice): Main stages of organizational and technological preparation of production. Directions for improving the organizational and technological preparation of production. The economic effect of the introduction of improvements in the processes of production preparation. Preparation for solving problems and performing test tasks.</i>
16	2	<i>Tema 10. Preparation for the survey and preparation of a report with a presentation in the classroom on the topic (of the student's choice): Organization of the repair service of the enterprise. Forms and features of repair service organization. Problems and ways to improve maintenance and repair of equipment at the enterprise. Preparation for solving problems and performing test tasks.</i>
17		<i>Topic 11. Preparation for the survey and preparation of a report with a presentation at a classroom lesson on the topic (of the student's choice): Systematization of enterprise plans. Tactical and operational planning at the enterprise. Forecasting the cost of new products at the design stages of production. Forecasting the cost of new products at the stages of production development.</i>

Preparation for the implementation of a modular control work: the discipline provides for 1 modular control work.

8	2	<i>Modular control work, part 1 Includes theoretical, test and analytical tasks on topics 1-4. MCW is performed in practical session No. 8</i>
15	2	<i>Modular control work, part 2 Includes theoretical, test and analytical tasks on topics 5-7. MCW is performed in practical lesson No. 15</i>

Preparation for the semester control in the form of credit.

17-18	6	<i>Preparation involves repetition of the material of the studied course through and through.</i>
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Policy and control

7. Policy of academic discipline (educational component)

Rules for attending classes

Attending classes is free, points for attending lectures and practical classes are not added. However, a significant part of the rating is formed through active participation in activities at practical classes.

You should follow the class schedule, if you are more than 15 minutes late, join the second part of the class (after the break).

Rules of behavior in classes

Compliance with the norms of ethical behavior defined in the Code of Honor of the National Technical University of Ukraine "Ihor Sikorsky Kyiv Polytechnic Institute" (<https://kpi.ua/code>).

Activity, processing and preparation of analytical materials based on the results of processing lecture material, analytical reports and analytical tasks, using information posted on the "Sikorsky" Platform/Electronic Campus, official websites of state institutions specializing in business analytics and decision-making, scientometric databases, domestic and international grant programs.

Rules for assigning incentive and penalty points

Incentive points can be obtained for additional completion of online courses, scientific activity, in particular publications in foreign publications and publications included in scientometric bases, use of own scientific research during the preparation of analytical and educational and research tasks.

Penalty points are not provided.

Rules for the protection of individual tasks

Modular control work. Conducting the modular control work is carried out in the form of a colloquium and consists of an oral interview on the entire material in accordance with the topics that are presented for the knowledge test.

Policy of deadlines and rescheduling

MCRs are drawn up only on the appointed day. If control measures or tasks are missed for valid reasons (illness or important life circumstances), an opportunity is given to make up tasks additionally during the coming week. Failure to complete tasks, as well as violation of the terms of their completion for illegitimate reasons, will not provide an opportunity to score the corresponding rating points.

The procedure for liquidation of academic debt and rescheduling of semester control is regulated by the Regulation on current, calendar and semester control of study results at Igor Sikorskyi KPI (<https://osvita.kpi.ua/index.php/node/32>). A student who, according to the results of the semester control, has an academic debt, has the right to liquidate it in accordance with the Regulation on the provision of additional educational services to students of higher education at Igor Sikorskyi KPI (<https://osvita.kpi.ua/index.php/node/177>).

The procedure for contesting the results of control measures

In the event that the applicant does not agree with the assessment based on the results of the control measure, he has the right to file an appeal on the day of the announcement of the results of the corresponding control in the name of the dean of the faculty according to the procedure defined by the Regulations on Appeals at KPI at Igor Sikorskyi KPI (<https://osvita.kpi.ua/index.php/node/182>).

Academic Integrity Policy

Compliance with the policy and principles of academic integrity, which are set forth in the Code of Honor of the National Technical University of Ukraine "Ihor Sikorsky Kyiv Polytechnic Institute" (<https://kpi.ua/code>), Regulations on academic plagiarism prevention system at KPI named after Igor Sikorsky. Abstracts can be checked for borrowings without proper references (plagiarism).

Extracurricular classes and involvement of practicing professionals

During the study of the discipline, extracurricular activities are possible, including attendance at international conferences and other scientific and practical events, provided active participation in such events.

Recognition of learning outcomes acquired in non-formal/ informal settings

The procedure for recognition of learning results acquired in non-formal/ informal education is regulated by the Regulation on recognition in KPI named after Ihor Sikorskyi of learning outcomes acquired in non-formal/ informal education (<https://osvita.kpi.ua/index.php/node/179>)

Individual content modules or discipline topics may be counted. In the case of enrolling only a separate substantive module / modules of the discipline, the applicant is exempted from performing the

corresponding tasks, receiving the maximum score for them in accordance with the rating evaluation system.

Distance Learning

Under the appropriate conditions, training can be conducted remotely in accordance with the Regulations on distance training at Igor Sikorskyi KPI (<https://osvita.kpi.ua/index.php/node/188>)

In order to ensure quality training of applicants, the distance course of the discipline is placed on the "Sikorsky" distance learning platform (<https://www.sikorsky-distance.org>). The following platforms are used to conduct synchronous training: Zoom , Google Meet .

8. Types of control and rating system for evaluating learning outcomes (RSO)

The evaluation is based on the application of the rating evaluation system (according to the Regulation on the evaluation system of learning results at Igor Sikorskyi KPI (<https://osvita.kpi.ua/index.php/node/37>), which provides for the systematic work of the applicant during the semester and consists of from the following measures:

The credit module rating consists of the points it receives for:

1. *Starting points* (max 100 points) :

- *answers in practical classes (survey, participation in discussion)*
- *solving problems in practical classes;*
- *performance of educational tasks in practical classes;*
- *solving test tasks;*
- *modular control work.*

Current control:

Answers in practical classes and additions to answers (max 10 points).

Calculation for one answer in a practical lesson (5 answers):

2 points	Active work, well-founded answers
1 point	The answer is not complete, needs to be supplemented
0 points	Passivity

Solving problems in practical classes - involves checking the student's level of training on a specific topic or educational element (approximate number of problems during the semester - 10, weighted point - 3, max 30 points);

3 points	Complete error-free problem solving
2 points	Insignificant errors during problem solving
0 points	<i>The problem is not solved</i>

Completion of educational tasks in practical classes (individual/team work) (max 20 points).

Calculation for one task (5 tasks):

4 points	The task was performed qualitatively, the results are substantiated and proven
2-3 points	The task is completed with certain inaccuracies or does not contain justifications
0 points	Task not completed

Solving test tasks in practical classes - involves checking the student's level of preparation for a specific topic or educational element (approximate number of test tasks during the semester - 20, weighted point - 1);

1 point	The answer is correct
0 points	The answer is incorrect

Modular control work (MCW) : (max 20 points)

MCW (2 parts, each - max 10 points) includes: 1) test tasks (40 tests, 0.2 points each); 2) analytical task (2 points):

10 points	1) completed test tasks correctly; 2) the analytical task is performed correctly, the results are justified
9 points	1) test tasks were completed with 1 error; 2) the logic of solving the analytical task is met, but insignificant errors are made
8-7 points	1) not all test tasks were completed correctly; 2) mistakes were made when performing the analytical task, the answer is not sufficiently substantiated
6 points	1) a significant number of errors were made when performing test tasks; 2) in the logic of solving the analytical task, there is a misunderstanding of its essence, the task is performed on the basis of assumptions
0 points	Tasks of the control work were not completed or were completed incorrectly

Calendar control : held twice per semester.

8 week	Certification condition: current rating of at least 25 points. Prepared at least 3 reports with a presentation in the classroom.
15 week	Certification condition: current rating of at least 42 points. Prepared at least 2 reports with a presentation in the classroom. A modular control work has been completed.

• **Semester control (credit)** (max 100 points).

Completion of all educational tasks (case studies, exercises, and practical skills training) is *a condition for admission to the credit*.

The credit is kept by the student without additional tests, if the sum of points scored is not less than 60. A student who received more than 60 points in the semester, but wants to improve his result, can take part in the credit control work. In this case, the final result consists of the points obtained on the final test.

Applicants who have fulfilled all the conditions for admission to the test and have a rating of less than 60 points take the test test. The final result consists of the points obtained on the final test.

The credit control work is conducted in the last scheduled lesson of the discipline .

The credit control work is evaluated out of 100 points. The control task of this work consists of three parts: theoretical questions (2 questions); test tasks (60 tests); analytical and calculation task (1 task):

<i>Theoretical questions</i>	
10 points	The answer to the question is stated correctly, comprehensively, without error and logically
9-8 points	The answer to the question is presented without error, not completely enough, but with the application of acquired theoretical knowledge
7-6 points	The answer to the question is not fully explained, but the main aspects are revealed
0 points	No answer
<i>Test tasks</i>	
1 point	The answer is correct
0 points	The answer is not correct
<i>Analytical and calculation task</i>	
20 points	Demonstrated knowledge of the material and successfully applied it for calculations, analysis and proof, conclusions were drawn using the acquired knowledge and skills
19-18 points	The analytical and calculation task has been completed, the calculations are correct, but no conclusions have been drawn based on the results or insignificant errors have been made in the statements
17-16 points	The obtained decision is correct, the obtained data have significant errors in explanation or proof
15-14 points	The analytical and calculation task is performed with minor errors, but the determined solution is unfounded
13-12 points	The analytical and calculation task is partially completed, it does not contain justifications, the application of acquired theoretical considerations and analytics corresponding to the completed course
0 points	Task not completed

The maximum score for the course is 100 points.

Table of correspondence of rating points to grades on the university scale:

<i>Scores</i>	<i>Rating</i>
100-95	Excellent
94-85	Very good
84-75	Good
74-65	Satisfactorily
64-60	Sufficient
Less than 60	Fail
Admission conditions not met	Not allowed

Additional information on the discipline (educational component)

- List of questions submitted for semester control (Appendix A to the syllabus).
- It is possible to include certificates of completion of remote or online courses on the relevant subject in the rating of the acquirer (" Coursera ", " Prometheus ").
- The presentation of the discipline can be transferred to a distance form under appropriate conditions according to the university's orders.

The working program of the academic discipline (syllabus):

Compiled by the professor of the Department of Economic Cybernetics, Doctor of Economic Sciences , prof. Trofymenko Olena Oleksiivna

Approved by the Department of Computer Engineering (Protocol No. 10 dated May 25, 2022)

Approved by the Department of Economic Cybernetics (protocol No. 14 dated June 29, 2022)

Agreed by the Methodical Commission of the Faculty of Informatics and Computer Engineering (protocol No. 10 dated June 9, 2022)

Agreed by the Methodical Commission of the Faculty of Management and Marketing (protocol No. 11 dated July 6, 2022)

APPENDIX A
Question for credit.

1. Describe the difference between the balance, original and liquidation value of fixed assets.
2. Legal basis of functioning of the enterprise in the field of IT .
3. Goals and areas of activity of the enterprise of the IT industry.
4. The market environment of enterprises and organizations in the IT industry.
5. Compare the advantages and disadvantages of the straight-line and cumulative depreciation methods.
6. Compare the advantages and disadvantages of straight-line and production methods of depreciation.
7. Describe the difference between physical and functional wear and tear of fixed assets.
8. Describe the difference between the concepts of "fund return" and "fund density".
9. Give a description of the concept of "profitability of means of production".
10. Describe the difference between the concepts of "royalty" and "lump sum payment".
11. Describe approaches to economic evaluation of software products.
12. Give the structure of working capital in the field of production.
13. Give the structure of current assets in the sphere of circulation.
14. Explain the difference between transportation, technological and reserve stocks of material resources.
15. Provide an explanation of the term "staff turnover".
16. Describe the difference between the concepts of "output" and "labor intensity".
17. Define the difference between basic and additional wages.
18. List the forms of the unitary wage system.
19. Explain the difference between payroll forms and systems.
20. Describe the structure of payroll taxes.
21. Describe the difference in composition between cost and price.
22. Describe the economic mechanism of the enterprise in the IT industry.
23. Describe the difference between conditional variable and conditional fixed costs.
24. Explain the essence of the "break-even point".
25. Explain the parametric costing method.
26. Describe the difference between revenue and gross profit.
27. Give the structure of the cycle of creation and development of new products.
28. Give options for the transition to the release of new species.
29. Form the main trends of digitization of the economy and the market of the IT industry.
30. Describe the difference between support and service processes
31. List and describe the company's plans.
32. Describe strategic change planning.
33. Outline the need for and structure of business planning.
34. Types of enterprise associations.
35. General characteristics of the IT market .
36. Indicators of the volume of production of the enterprise.
37. Concept, classification and structure of personnel.
38. Determination of the number of employees.
39. Calculation of the balance of the employee's working time.
40. The contract system of hiring employees.
41. General characteristics of capital and means of production.
42. The main assets of the enterprise: concept, composition, structure.
43. Operation of fixed assets. Types of wear. Reproduction of fixed assets.
44. Depreciation: concepts, types, methods.
45. Indicators of the efficiency of the use of fixed assets.
46. Intangible resources of the enterprise: concepts and types.
47. Intangible assets. Concept and protection of property rights.

48. Concept, essence, composition, structure of current assets.
49. Indicators of the efficiency of the use of working capital.
50. Indicators and ways of better use of materials, raw materials
51. Investments: concept, composition, structure.
52. The concept and types of capital investments.
53. Financial investments. Securities.
54. Assessment of investment efficiency.
55. General characteristics of innovative processes.
56. Scientific and technical progress, its general and priority directions.
57. Production process: concepts, structure and principles of organization.
58. Organizational types of production.
59. Labor productivity of personnel: general characteristics and essence.
60. Labor productivity indicators and methods of their determination.
61. Norm of time: concept, essence. Calculation method.
62. Factors of labor productivity growth.
63. Salary: concept, essence and functions.
64. Organization of wages. Tariff system.
65. Wage forms and systems.
66. Work motivation.
67. Supplements and allowances to wages.
68. State regulation of wages.
69. State guarantees and support for workers.
70. The essence and functions of enterprise finance.
71. Types of financial resources and sources of their formation.
72. General characteristics of expenses. Classification of costs.
73. The concept of production cost. Estimate.
74. The essence and methods of calculation.
75. Technical and economic factors of cost reduction.
76. Price: general characteristics and functions.
77. Structure and types of prices.
78. Pricing methods.
79. Indirect taxes and their impact on pricing.
80. Concept, essence and sources of income of the enterprise.
81. The essence and indicators of profit.
82. Directions for use of profit.
83. General characteristics of taxes paid by the company.
84. Factors of profit growth.
85. Profitability: concept, essence and types.
86. Methods of calculating profitability indicators.
87. Assessment of financial stability and solvency of enterprises.
88. Calculation of the break-even point.
89. Factors of increasing production efficiency.
90. State regulation of entrepreneurial activity in the IT sphere .