Syllabus
Course Program

Fundamentals of business analysis

Specialty
D3 - Management

Institute
Institute of Education and Science in Economics, Management and International Business

Specialization
-

Department
Department of Management (204)

Educational program
Business administration (in English)

Course type
Mandatory

Level of education
First (bachelor's level)

Form of study
Full-time,

Semester
4

Language of instruction
English

Lecturers and course developers



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PhD in Management, Associate Professor of Department of Management

Authored and co-authored over 40 scientific and methodological publications. Courses: Business Valuation, Fundamentals of Business analysis, Social design, Fundamentals of fundraising, Competitiveness management, Business Planning

More about the lecturer on the department's website

General information

Summary

The discipline is focused on the development of certain knowledge to ensure the economic and analytical training of students, providing them with the necessary theoretical knowledge and practical skills to carry out a systematic assessment of the effectiveness of the enterprise's economic activity; identifying positive or negative influencing factors.

Course objectives and goals

Students acquire knowledge and practical skills in assessing financial and economic activities and enterprises.

Format of classes

Lectures, workshops, consultations, self-study, individual task (control work). Final control in the form of exam.

Competencies

GC04. The ability to apply knowledge in practical situations.

GC10. The ability to conduct research at an appropriate level.
SC02. The ability to analyze the results of organization activity, to compare them with the factors of the external and internal environment.
SC10. The ability to work in a team and to establish interpersonal interaction in solving professional tasks.

Learning outcomes

LO 04. To show skills of identification of problems and justification of management decisions.
LO 06. To show skills of search, collecting, and analysis of information, calculation of indicators to substantiate management decisions.
LO 17. To conduct researches individually and/or in a group under the leadership of the leader.

Student workload

The total volume of the course is 120 hours (4 ECTS credits): lectures – 32 hours, workshops – 16 hours, self-study – 72 hours.

Course prerequisites

To successfully complete the course, you must have knowledge and practical skills from the following courses: "Higher mathematics", "Economic Statistics", "Fundamentals of Entrepreneurship", "Enterprise Economics", "Managerial accounting", "Business planning".

Features of the course, teaching and learning methods, and technologies

Lectures are conducted in an interactive form using multimedia technologies. Practical classes are conducted using a project approach and focus on using modern information technologies. Study materials are available to students through Microsoft Teams.

Program of the course

Academic classes

Lectures

Topics of the lectures	Hours
Topic 1. Fundamentals of business analysis and its components. The meaning and basics of BA. The purpose and objectives of the course. Components of external and internal analysis. The main tools of external and internal analysis.	2
Topic 2. Informational and analytical support of the analysis. The information system, its sources and channels of receipt. Analytical information, its sources. The subjects and objects of the analysis.	2
Topic 3. The place and role of the analysis of the enterprise's economic activity. The subject, purpose and objectives of the analysis of the enterprise's economic activity. Types and basic principles of the analysis of economic activity.	2
Topic 4. Methodological support for the analysis of the enterprise's economic activity. Methods of economic analysis of the enterprise's activity.	2
Topic 5. Analytical support of the analysis. Financial statements of the company. Balance sheet, its main components. Statement of financial results, its main components. Relationship between the balance sheet and income statement. Horizontal and vertical analysis of financial statements.	3
Topic 6. Indicators of the company's property status and business activity. Indicators of the property status of the enterprise. Indicators of the organization's business activity. Analysis of the efficiency of using fixed and working capital.	3
Topic 7. Profitability indicators of the enterprise.	3

The system of evaluating the profitability of the enterprise. Methods of calculation and application of indicators. Evaluation metrics: ROTA, ROA, ROE, ROIC, ROCE, RONA, etc. Financial leverage effect.	
Topic 8. Assessment of the liquidity and solvency of the enterprise. Concept of liquidity and system of ratios. Solvency ratios.	3
Topic 9. Assessment of the enterprise's financial stability. Structure of a company's income and expenses. Determining the type of financial stability of a company.	3
Topic 10. Analysis of production and product sales. Indicators characterizing the organizational and technical level of production. Operational analysis of the implementation of the product sales plan. Analysis of product quality, assortment, and structure.	3
Topic 11. Analysis of a company's workforce availability. Analysis of personnel structure. Analysis of labor force movement and working time utilization. Analysis of labor productivity.	3
Topic 12. Economic diagnostics of a company. The essence and classification of economic diagnostics. Tools of economic diagnostics. Bankruptcy forecasting system. Models for diagnosing the financial condition of a business entity.	3
Total hours	**32**

Workshops

Topics for workshops/seminars	Hours	Weighting coefficients *a*
Topic 1. Analysis of the external and internal environment. Macroenvironment factors and PEST analysis. Industry structure and Porter's Five Forces model. SWOT analysis and assessment of internal resources and competitive advantages.	1	0,064
Topic 2. Information system, its sources and channels of inflow. Data preparation and processing, documentary presentation of analysis results. Structure and functions of the enterprise information system. Internal and external sources of economic and financial data. Principles of data processing and documentation of analytical results.	1	0,064
Topic 3. Methods and techniques for business activity analysis. Horizontal, vertical, and trend analysis of financial statements. Factor, comparative, and index methods of analysis. Application of statistical and graphical tools in business analysis.	1	0,064
Topic 4. Essence and classification of economic diagnostics. Tools of economic diagnostics. Concept, objectives, and types of economic diagnostics. Financial diagnostics and comprehensive performance evaluation. Diagnostic tools for identifying problem areas in enterprise activity.	1	0,064
Topic 5. Assessment of a company's provision with fixed assets. Economic essence and classification of fixed assets. Analysis of structure, dynamics, and technical condition of assets. Indicators of fixed asset renewal, depreciation, and utilization efficiency.	1,5	0,093
Topic 6. Analysis of the efficiency of the use of tangible resources.	1,5	0,093

Composition and role of tangible resources in production. Material intensity, material yield, and inventory turnover indicators. Evaluation of resource utilization efficiency and cost optimization reserves.		
Topic 7. Profitability indicators of a company's activities. Types and formation of enterprise profit. Return on assets, equity, sales, and production. Analysis of profitability dynamics and influencing factors.	1,5	0,093
Topic 8. Calculation of liquidity and solvency ratios. Concepts of liquidity and short-term solvency. Structure of current assets and current liabilities. Current, quick, and absolute liquidity ratios and their interpretation.	1,5	0,093
Topic 9. Determining the type of a company's financial stability. Essence and indicators of financial stability. Assessment of working capital sufficiency. Classification and determination of financial stability types.	1,5	0,093
Topic 10. Assessment of the implementation of the enterprise's production program by volume, assortment and structure. Analysis of the dynamics of gross and commodity products production. Production program indicators by volume, assortment, and structure. Analysis of gross and marketable output dynamics. Evaluation of structural shifts and production performance results.	1,5	0,093
Topic 11. Analysis of personnel structure. Analysis of employees' qualification levels. Classification and structural composition of personnel. Indicators of labor movement and turnover. Assessment of qualification levels and labor productivity.	1,5	0,093
Topic 12. Bankruptcy forecasting system. Using models of foreign and domestic prominent scientists. Economic essence and stages of bankruptcy. Altman, Beaver, and other discriminant models. Domestic approaches to bankruptcy risk assessment and comparison of models.	1,5	0,093
Total hours	**16**	$\sum_{i=1}^{n} a_i$

Laboratory classes

no laboratory classes

Control works

Students complete two control tests covering the studied topics. For each assessment, students are offered five individual variants of practical assignments. Each variant includes 10 multiple-choice test questions and 5 analytical problem-solving tasks. The test questions are generated from the approved list of topics and cover theoretical and methodological aspects of the course. Each test question has only one correct answer. The practical tasks require calculations, interpretation of results and formulation of analytical conclusions in accordance with the studied methods and techniques.

Self-study

Self-study includes processing of materials provided in lectures and preparation for practical classes (12 h), independent study of specific issues and additional information (18 h), as well as completing of a control work (36 h) and preparation for tests (6 h).

Work on theoretical materials

Topics for self-study	Hours
Topic 1. BUSINESS ANALYTICS AND ITS PLACE IN THE ENTERPRISE MANAGEMENT SYSTEM Business analytics as a discipline. Areas of application of business analytics in the enterprise. Business analyst in the enterprise: role, professional skills and interests.	2,25
Topic 2. FEATURES OF BUSINESS PROCESS ANALYSIS Business processes of the enterprise: essence, boundaries and types. Methods of business process analysis. Business process efficiency indicators.	2,25
Topic 3. OPTIMIZATION OF BUSINESS PROCESSES OF AN ENTERPRISE Optimization of business processes: essence, principles and criteria. Methods of optimizing business processes.	2,25
Topic 4. ANALYSIS OF THE STATE OF THE ENTERPRISE The need for analysis of the state of the enterprise. Methods of analysis of the state of the enterprise. Diagnostics of the internal environment of the organization.	2,25
Topic 5. REQUIREMENTS IDENTIFICATION, ANALYSIS AND MANAGEMENT The essence of requirements management. Types of requirements. Sections of requirements analysis. Problems of requirements analysis.	2,25
Topic 6. BUSINESS ANALYSIS OF THE MARKET CONDITION Business analysis of the organization's external environment. Components of market analysis. Market evaluation criteria.	2,25
Topic 7. FEATURES OF FINANCIAL MARKETS ANALYSIS Methods of analyzing financial markets. Indicators for analyzing different types of financial markets. Methods of forecasting financial market conditions	2,25
Topic 8. ANALYSIS OF BUSINESS DEVELOPMENT RISKS The essence of risk and factors of risk situations in business. Techniques and methods of risk analysis. Possible strategies of company behavior regarding risks.	2,25
Total hours	**18**

Individual assignment (control work)

As part of this course, students are required to complete an individual assignment (control work) that incorporates practical problem-solving elements related to assessing a company's financial condition. This assignment is conducted using a real operating organization as an example. The individual assignment (control work) is an independent student task aimed at fully exploring the course topics through practical application while receiving necessary guidance and consultation from the instructor. The results of the control work must be presented in written form as a properly formatted report, following the general requirements for such assignments and in accordance with the guidelines for completing the individual assignment in the discipline "Basics of Business Analysis".

Topic for individual assignment (control work)	
Analysis of the financial and economic activities of an enterprise, conducting an assessment of its financial condition.	
Total hours	**36**

Non-formal education

Non-formal education includes professional courses/training, civic education, online education, professional internships, etc. The elements of non-formal education recommended in the syllabus can be

recognized through a simplified procedure without additional validation of the results (without creation of a subject committee).

Recommended training courses, internships

1. Online course «Business Analysis Essentials»
https://e5.ua/uk/trainings/bezkoshtovnyj-onlajn-kurs-business-analysis-essentials/
2. Online course «Fundamentals of business analysis»
https://career.softserveinc.com/uk-ua/technology/course/business-analysis-fundamentals

Literature, training materials, and information resources

Main literature

1. BABOK. A guide to the business analysis body of knowledge. 3rd Ver. / International Institute of Business Analysis, Toronto, Ontario, Canada, 2015. – 504 p.
2. Debra Paul, James Cadle. Business Analysis. 4th Ed. / BCS Learning and Development Ltd., UK, 2020. – 439 p.
3. Ali Cox. Business Analysis For Dummies, 2nd Edition. John Wiley & Sons, Inc., Hoboken, New Jersey, 2023. – 506 p.
4. Helen Winter. The Business Analysis Handbook. Techniques to deliver better business outcomes. 2nd Ed. / Kogan Page Inc, New York, NY, 2023. – 337 p.
5. Paul Beynon-Davies. Business analysis and design : understanding innovation in organisation. Palgrave Macmillan, Cham, Switzerland, 2021. – 425 p.
6. Howard Podeswa. The Agile guide to business analysis and planning : from strategic plan to continuous value delivery. Case Study Workshops. Addison-Wesley, Boston, 2021. – 43 p.
7. Weese, S., & Wagner, T. CBAP/CCBA certified business analysis study guide. Second edition. John Wiley & Sons, Hoboken, NJ, 2017. – 474 p.
8. Jenkins, W., & Williamson, D. Strategic management and business analysis. Second edition. Routledge, London, 2016. – 259 p.

Additional materials

1. Сидорова А. В. Бізнес – аналітика: навч. – метод. посібник / А. В. Сидорова , Д. В. Біленко, Н. В. Буркіна. – Вінниця : ДонНУ імені Василя Стуса, 2019. – 104 с.
2. Фінансова звітність підприємств: Навчально-методичний посібник / С. В. Приймак, М. Т. Костишина, Д. В. Долбнєва. – Львів: Ліга-Прес, 2016. – 268 с.
3. Інформаційні системи бізнес аналітики. Навчально наочний посібник [Електронний ресурс] / КПІ ім. Ігоря Сікорського ; уклад.: О.В.Стець. – Електрон. текст. дані (1 файл). – Київ : КПІ ім. Ігоря Сікорського, 2024. – 76 с.
4. Угрімова І.В. Методичні вказівки до виконання розрахункового індивідуального завдання з курсу «Основи бізнес-аналізу» для студентів спеціальності 073 "Менеджмент" освітня програма «Менеджмент організацій та адміністрування». – Харків: НТУ "ХПІ", 2022. – 43 с.
5. Національне Положення (стандарт) бухгалтерського обліку 1 «Загальні вимоги до фінансової звітності»: Затв. наказом Міністерства фінансів України від 7 лютого 2013 р. № 73 і зареєстровано Міністерством юстиції України 28 лютого 2013 р. за № 336/22868 (із змінами та доповненнями). Режим доступу: https://zakon.rada.gov.ua/laws/show/z0336-13#Text
6. Національне положення (стандарт) бухгалтерського обліку 25 „Спрощена фінансова звітність‖: Затв. наказом Міністерства фінансів України від 25 лютого 2000 р. № 96 39 (із змінами та доповненнями). Режим доступу: https://zakon.rada.gov.ua/laws/show/z0161- 00

Grading system

The final grade for the educational component is determined by the lecturer and is based on topics, types of activities, etc., in accordance with the syllabus. It is an integrated assessment of the results of all types of student learning activities. The final grade should reflect all the grades for the different parts of the educational process, taking into account their weighting coefficients *k*:

Continuous assessment (during workshops), k_1	Control works, k_2	Individual assignment, k_3	Final assessment, k_4
0,3	0,2	0,4	0,1

The sum of the coefficients must be equal to one: $k_1 + k_2 + k_3 + k_4 = 1$. The weighting coefficients for the final assessment are decided by the course developer.
The final grade is calculated using the following formula:

$$G = C \cdot k_1 + K \cdot k_2 + I \cdot k_3 + E \cdot k_4$$

where: C – weighted average score for the continuous assessment
I – individual assignment grade
K – weighted average score for the continuous assessment
E – final assessment (exam) grade

$$C = \frac{C_1 \cdot a_1 + C_2 \cdot a_2 + \ldots + C_n \cdot a_n}{\sum_{i=1}^{n} a_i}$$

де: a_i - weighting coefficient for each workshop (seminar) or laboratory class.

$$K = \frac{K_1 \cdot b_1 + K_2 \cdot b_2 + \ldots + K_m \cdot b_m}{\sum_{i=1}^{m} b_i}$$

де: b_i - weighting coefficient for each control work.

The assessments for each component (C, K, I, etc.) are based on a 100-point scale in line with the provisions of the "Criteria and System for Assessing Knowledge and Skills, and Rating of Higher Education Students" of the National Technical University "Kharkiv Polytechnic Institute."

The final grade is finalized as the calculated value of *G*, rounded up to the nearest integer.

Grading scale

Total points	National	ECTS
90–100	Excellent	A
82–89	Good	B
75–81	Good	C
64–74	Satisfactory	D
60–63	Satisfactory	E
35–59	Unsatisfactory (requires additional learning)	FX
1–34	Unsatisfactory (requires repetition of the course)	F

Norms of academic integrity and course policy

Students must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": to demonstrate discipline, good manners, kindness, honesty, and responsibility. Conflict situations should be openly discussed in academic groups with a lecturer, and if it is impossible to resolve the conflict, they should be brought to the attention of the Institute's management.
Regulatory and legal documents related to the implementation of the principles of academic integrity at NTU "KhPI" are available on the website: http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/

Approval

Approved by	30.08.2025		Head of the department Nataliia SHMATKO
	30.08.2025		Guarantor of the educational program Olena PROKHORENKO